PROCEEDINGS

OF THE

CEYLON BRANCH

OF THE

ROYAL ASIATIC SOCIETY.

1870—71.

EDITED BY

THE HONORARY SECRETARY.

"The design of the Society is to institute and promote enquiries into the History, Religion, Literature, Arts and Social Condition of the present and former inhabitants of this Island, with its Geology, Mineralogy, its Climate and Meteorology, its Botany and Zoology."—RULES.

One copy of each Journal is sent to every member *who has paid his subscription for the current year*, and to every Honorary Member resident in Ceylon; a second copy may be procured on application to the Secretary.

A number of copies of the Society's Journals for 1845, 1846, 1847-8, 1853, 1855, 1858-9, 1860-1, 1865-6, 1867-70, are for sale in the Library.

Price to Members..... 2s.
Do. the Public..... 4s.

COLOMBO:
PRINTED AT THE "CEYLON TIMES" OFFICE.
AGENTS IN LONDON: MESSRS. TRÜBNER & CO. PATERNOSTER ROW.

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Notes for the Binder.

The list of Contents now issued is for the Journal and Proceedings which form one volume: it should follow the Title Page with the list of Errata.

The plate of the "Dondra Head Inscription" should be placed after page 28 of the Journal.

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ERRATA.

The following misprints occur in the Journal issued with these Proceedings.

Page 33, line 28, "Callus" for *Gallus.*
Page 37, line 19, "extensively" for *exclusively.*
Page 41, line 26, "seen it in" for *seen in.*
Page 42, line 7, "features" for *feathers.*
Page 52, foot note "500" for "5000,"
Page 56, line 9, "charardrins" for *charadrins.*
Page 57, line 4, "Rhydchœa" for *Rhynchœa.*
Page 62, line 10, "Callingo" for *Gallinago.*
Page 156, line 2 from bottom, "their" for *heir.*

PROCEEDINGS

OF

MEETINGS OF THE CEYLON BRANCH

OF

THE ROYAL ASIATIC SOCIETY.

Commttee Meeting, 24th March, 1870.

The Rev. Dr. Boake, Vice-President, in the Chair.

Messrs. J. Capper, R. Dawson, W. Skeen, W. Bryan, L. de Zoysa, and W. V. Legge, (Secretary.)

The following propositions for reorganising, and improving the condition of, the Society's Museum and Library, were laid before the meeting by the Secretary, and adopted unanimously.

LIBRARY.—That the Librarian be instructed to draw up a new list of books at present in the cases, with a view to finding, on comparing it with the Catalogue, what works are missing; and that all books at present out, should be immediately re-called and a new Catalogue commenced, also that he be instructed to prepare a list of what Journals and Periodicals are owing to the Society, from the various Institutions and Societies with which it is in communication.

That the small room be made into a Library, reserving the large hall entirely for the purposes of a Museum.

MUSEUM.—That the mounted collection of birds and animals received from the Military Medical Museum, as also the butterflies at present in the possession of the Society (which have become

decayed from want of care) be immediately removed, and new collections commenced forthwith.

That the collection of birds be made in the skin, as in that state they are more capable of preservation.

That the objects in the Museum be classified, and the cases arranged in departments, according to the nature of their contents.

That the imperfect skeleton of the whale at present encumbering the large hall, be removed and placed in a shed built, with the permission of Government, at the east end of the Museum, and that the Elephant's skeleton be removed and hung in the large hall.

That part of the small apartment be screened off for a Taxidermist's studio.

The Secretary informed the meeting that he had written to Mr. Whyte of Kandy, asking him to contribute towards the new collection of birds at his lowest possible price, and it was decided to purchase skins from him at 18s. a dozen, if he would consent to supply them at that price. It was further decided to hold out inducements to intelligent natives and others to collect for the Society in distant parts, if men capable of so doing could be found.

The Secretary brought to the notice of the Meeting the dilapidated state of the building, and laid upon the table a copy of a letter he had written on the subject to the Colonial Secretary.

It was resolved that, should Government not be willing to repair the building, a sum of £10 should be placed at the disposal of the Secretary for carrying out the most necessary items.

A return shewing the large amount of arrears due by members to the Society was laid before the meeting, and it was decided that such members should be written to immediately and requested to pay, and that if this was without good result a notice should be sent to them to the effect that, if the current subscrip-

tion were not paid within a certain time their names would be struck off the list.*

It was decided that a new "Committee on Papers" should be appointed at the next meeting held.

It was proposed by the Secretary, and resolved by the Meeting, that the proceedings of the Zoological Society of London should be taken in for the Library.

(Signed) BARCROFT BOAKE, D.D.
Chairman.

Committee Meeting, May 11th, 1870.

The Revd. Dr. Boake, D.D., Vice-President, in the Chair.

Messrs. R. Dawson, J. Koch, R. V. Dunlop, W. Skeen, L. De Zoysa, and W. V. Legge, Secretary.

The Proceedings of the last meeting were read, and signed by the Chairman; the Secretary then referred to those Resolutions which had been carried out, and reported that a list of the Books in the Society's Library had been made out, and that the result had been satisfactory, inasmuch as but two works were found to be lost, viz: the Dravidian, grammar and one Vol. of the Proceedings of the Geographical Society: the new Catalogue had not yet been finished, owing to the absence from Colombo of a member who had volunteered to assist the Librarian in its preparation: an estimate for repair of the Museum had been taken, and it was hoped that it would shortly be sanctioned by Government;—the repairs consisted chiefly of new ceilings to both rooms, a gutter outside the Verandah, the alteration of the light, placing the venetians at the bottom and the glass at the top of the existing window-

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* This resolution was modified by the adoption of a special rule (New Rule 8) to meet this case at the General Meeting of the 9th June.
Hon. Sec. R. A. S., (C. B.)

frames, thereby adding more wall-space and creating a higher and eonsequently a better light, and various other repairs calculated to place the Society's rooms in proper order. The skeleton of the whale had been removed to the verandah at the back of the building.

It had been attempted to dispose of the decayed collection of birds and animals, but the result had been a failure, and they had been broken up for the tow and wires that they contained. A Taxidermist had been appointed, and promised to become efficient in the duties connected with his business. Mr. Whyte of Kandy had written to say that he would supply birds' skins of the commoner sorts at 18/ per dozen, but that he could not dispose of some birds at that price. Letters had been written by the Secretary, accompanying the notices sent by the Treasurer, to those members owing large arrears; also a letter of thanks to Mr. De Zoysa for the Peacock which he had presented to the Society's Museum.

The meeting then proceeded to business: a "Committee of Papers" was forthwith elected, consisting of the Revd. Dr. Boake, D.D. Messrs. Lee, Capper, Skeen, Alwis, and De Zoysa. The Secretary announced that he had received a paper from Mr. Rhys Davids on a method of taking inscriptions, which would be submitted at the next general meeting.

It was resolved that a letter be written to Mr. R. Quarieteh, Piccadilly, thanking him for the Catalogue of Books which he had presented to the Society's library, and that a copy of the Journal, 1867-70, should be sent him.

The Treasurer laid before the meeting a letter from Mr. Coomara Swamy, referring to a cheque for £5 5s, arrears which he had sent him, in which he stated that he was not aware that he had belonged to the Society, as he had not taken any part in its proceedings since 1862. It was resolved that the money should be held over, and a letter written to Mr. Coomara Swamy, inviting him to become a life member, on a further payment of £1 15s.

The late Treasurer, Mr. O'Halloran, having intimated to the Secretary that his accounts were ready to hand over, a Committee was appointed to audit them, consisting of Messrs. Dawson and Skeen, and it was decided to invite Mr. O'Halloran to join the Committee of Management, in recognition of his past services to the Society.

It was resolved that the re-printing of such Numbers of the Journal as were out of print, should be proceeded with, and that when the sett was completed a series should be advertised for sale.

Proposed by Mr. Skeen, and seconded by Mr. Dawson, that the Society should purchase Max Müller's "Chips from a German Workshop" from Mr. De Zoysa; the work was then laid on the table, and the resolution was carried.

The question of holding a Soiree at an early date was then discussed, and as the Treasurer kindly volunteered to place his house at the disposal of the Society for that purpose, it was resolved to meet some evening in July (date to be hereafter named) when a subject of interest would be brought forward for discussion.

A sum not exceeding £20 was placed at the disposal of the Secretary for altering and refitting cases in the Museum, and for mounting the collection of Shells in tables, with glass covers. This was instead of the £10 voted at the last meeting for repairs to the building, as it appeared probable that these would be carried out by Government.

Mr. Skeen handed in the names of two gentlemen desirous of joining the Society, viz., Messrs. Mitchell and Mendris.

The Secretary then informed the meeting that he had received a collection of Australian Beetles, presented to the Society by an entymologist in that colony, a Mr. Chas. French. A letter was read which accompanied this gift, and the thanks of the Society were order to be conveyed to the donor.

Besides the above, the following additions to the Society's Library and Museum, were laid on the table.

Annals of Natural History for March and April.

20 Birds (consisting of 11 species) presented by the Secretary and preserved by the Taxidermist, 61 Butterflies and Coleoptera collected by the Secretary and Taxidermist.

(*Signed*) BARCROFT BOAKE, D. D.

Vice-President.

Committee Meeting, 7th June, 1870.

Present.—The Revd. B. Boake, D. D., (in the Chair.) Messrs. J. Capper, the Revd. J. Scott, L. De Soysa, W. V. Legge (Secretary.)

The Proceedings of the last Committee Meeting have been read by the Secretary, and signed by the Chairman, the former reported that since the assembly of the meeting, letters had been written to Messrs. Juarritch, Coomara Swamy and O'Halloran, in accordance with the resolutions passed thereat. The Journal had not been sent to Mr. Juarritch, as it was thought advisable to wait until Part II. had been issued. Mr. Coomara Swamy had expressed a wish that the Treasurer should appropriate the money he had sent him, and intimated that he would not make up his mind as to being made a Life Member until next year; Mr. O'Halloran had accepted the offer of the Committee to enrol him in their ranks; further, that the accounts for the session of 1867—1870, had been audited, and handed over to the present Treasurer, a copy having been at the same time sent to the Printer. The Secretary also reported that the Zoological Collections, (Birds, Beetles and Flies), which he had commenced in March, were progressing favorably, many new specimens having been added since the last meeting.

The Committee then proceeded to consider various amendments in the Rules and Regulations laid on the Table by the

Secretary, and resolved to call a Special General Meeting without delay, to bring them into force, in order that the revised Rules might be printed in Part II. of the Journal.

The Secretary handed in the names of two gentlemen desirous of joining the Society at the next General Meeting, viz., Mr. Catto, proposed by Mr. R. L. M. Brown, and Mr. G. W. Prescott, proposed by Mr. Capper.

(Signed) B. BOAKE, D. D.
Vice-President.

Special General Meeting, 9th June, 1870.

Present.—The Revd. B. Boake, D. D., (in the Chair). Messrs. K. Jones, J. Capper, W. Mackwood, W. Skeen, L. De Soyza, W. V. Legge (*Secretary.*)

This meeting was called to pass some alterations in, and additions to, the Rules and Regulations of this Society, submitted by the Committee and drawn up at the meeting of the 7th inst. The proceedings of this meeting having been read by the Secretary and confirmed by the Chairman, the following was laid before the meeting and approved of.—To be inserted after Rule six, and to form new Rule seven.

"*All Military Medical Officers* who may reside in Ceylon are honorary members of the Society, without entrance fee or subscription." (Vide General Meeting, June 21st, 1862.)
To follow in continuation of present Rule seven, as new Rule eight.

"*Annual subscriptions shall be considered due on the first of January of each year. Members who fail to pay them by the end of the year, provided they have been called for, shall be considered to have relinquished their connection with the Society.*"

To follow the above, as a new Rule (No. 9.)

"*The privilege of Life Membership may be ensured by the payment* £10 10*s.*, *without entrance Fee*, (£8 8*s.*, *after two years, and* £7 7*s. after four or more years' subscription.*)"

In old Rule 8,

"Vice-Presidents" to be altered to *two Vice-Presidents.*

In Para 1 of old Rule 8.

Insert *one of* before "Vice-Presidents."

In old Rule 9.

After "Two" to *nine*, and add, *with power to add to their number* after word "Members."

Old Rule 10 to be altered to the following, which will be Rule 12.

"*Members desirous of proposing persons for admission to the Society shall give notice of the same to the Secretary in writing, at least a fortnight before the assembly of a General Meeting. Admission to Membership of the Society shall be by Ballot, at any General Meeting. No Candidate to be considered as elected, unless he has in his favor two thirds of the votes taken.*"

Old Rule 12 to be altered to the following, which will be Rule 14.

"*All papers and other communications to the Society shall be forwarded to the Secretary at least a fortnight before the assembly of the General Meeting at which they are to be submitted ; when they shall be read by the author, or, in his absence, by the Secretary or some Member of the Society*

Old Rule 13 to be altered as follows :—

"*All papers and other communications to the Society read or submitted at any General Meeting shall be open to free discussion, and such papers shall be printed in the transactions of the Society as shall have been approved of by the Committee on Papers.*"

In Paragraph 4th, Old Rule 14.

Alter "or admitted" to "*and admitted or otherwise.*"

Rescind the latter part of Rule 16, relating to copies, and substitute for it as a New Rule the following :—

"*A copy of each Journal shall be sent by the Secretary to every Member who has paid his subscription for the current year. And to every Honorary Member resident in Ceylon, and every such member may procure a second copy on application to the Secretary. Members requiring more than two copies of the Journal, can be supplied with them at half the price charged to the Public.*"

A new Rule, No. 21, to be introduced after Rule 17.

"*Members who have been absent from Ceylon, may on their return to the Island, have the privilege of rejoining the Society within twelve months of their arrival, on payment of the subscription for the current year.*"

To follow this, as a new Rule,

"*It shall be competent in any General Meeting to suspend temporarily any of the above Rules.*"

LIBRARY.

Add to Rule 1, the words, "*which shall be initialled by the Librarian.*"

Paragraph 2, Rule 1, to be altered as follows: "*Books*" *and Periodicals must be returned at the end of the month in which they were issued, to enable the Librarian to certify his Catalogue. Members not residing in Colombo may retain a Book for a period not exceeding three months.*"

It was decided that the above alterations and additions should appear in the Rules about to be printed in Part II. of the Journal.

The Secretary informed the meeting that this matter having been settled, the second part of the Journal would appear in the course of a few days.

Proposed by Mr. Skeen, seconded by Mr. L. De Soyza that a sum not exceeding five pounds be placed at the disposal of the Secretary, for the purchase of some Books on Buddhism, advertised in Messrs. Trübner and Co's Catalogue.

The meeting authorised the purchase of the last four years' Numbers of the Calcutta Review, which had been ordered by the

Secretary, and also decided that he should pay the current subscription for this year's publications.

The Secretary read a letter from Mr. Kock, asking if he might remove from the Museum a couple of skeletons, to assist him in lecturing to Medical Students. The meeting decided that there would be no objection to Dr. Kock having the skeletons, he being a member of the General Committee, provided he be answerable for their proper safety.

The following gentlemen were then ballotted for, and elected Members of the Society, viz:

Mr. G. W. Prescott, proposed by Mr. Capper, seconded by Mr. Skeen.

Mr. J. Catto, proposed by the Secretary, seconded by Mr. Mackwood.

Mr. J. C. Mitchell, proposed by Mr. Skeen, seconded by the Secretary.

Mr. G. Mendris, proposed by Mr. Skeen, seconded by Mr. L. De Soyza.

Mr. Skeen presented the Society with a copy of his work on "Adam's Peak," for which the meeting tendered him their best thanks.

(Signed) A. B. Fyers.
President and Chairman.

Committee Meeting, 28*th July*, 1870.

Present.—Captain Fyers, in the Chair. Messrs. R. V. Dunlop, J. Capper, J. Bryan, W. Skeen, L. De Soyza, and W. V. Legge (Secretary.)

This meeting was called to consider a Memorial which had been drawn up for submission to the Colonial Secretary, concerning the preservation of Inscriptions in Ceylon; the Chairman however informed the meeting, that the matter had been fully laid before the Archæological Committee, and that he was sure they would do all in their power to save these valuable relics from

further destruction; it was therefore resolved not to submit the Memorial, but it was decided that a letter should be written to the Archæological Committee, requesting them to forward to this Society duplicate copies of any impressions that they might take.

It was resolved that various drawings and inscriptions which will have to accompany papers for the next Journal, should be lithographed.

The Secretary read a letter from the Madras Literary Society, to the effect that their publications had ceased on account of want of support. In view of this fact the Committee resolved that the publications of this Society should be no longer furnished to the Literary Society.

Attention was called to the insufficient sum of ten pounds for re-printing, as voted at General Meeting 29-11-67, and the Secretary stated that even one Journal would cost nearly thirty pounds. It was then resolved that the re-printing of the back Numbers of the Journal should cease for the present year, after the three that were in hand were completed, as the remaining could be done whenever the funds of the Society would allow.

The Secretary then read a letter from the Secretary of the London Zoological Society, to the effect that their publications could not be supplied for the sum of £1 1s.

It was decided that those members and others who had paid for the Part I. of the Journal for this year should not be charged for Part II.

The estimate that had been sanctioned by Government for the repair of the Museum was laid on the table, and the Secretary informed the meeting that the work would commence on the 1st proximo.

The Secretary read a letter from Mr. J. Maitland to the Treasurer, asking whether he should not be considered an Honorary Member. It was decided that Rule 7 did not apply to him, and therefore the Treasurer was instructed to place the annual sub-

scription which Mr. Maitland had sent him, to the credit of the Society.

It was resolved that the back Numbers of the parent Society's Journal which had not been sent should be written for.

The following names of gentlemen desirous of Membership were then handed in, viz., Messrs. T. Gunn, H. H. Bowman, and the Revd. J. Allcock.

The following additions to the Museum and Library, received since the last meeting, were then laid on the table.

Museum, four Coins from Anaradhapura, by Dr. Ondaatjie.

Library, Annals of Natural History.

The following works, through the Smithsonian Institution.

1. The Great Central Fair, U. S. Sanitary Commission.
2. The U. S. Sanitary Commission.
3. Letter of the President of the Academy of Natural Sciences, 1868.
4. do. of the Vice-President, 1868.
5. Forty-nine Annual Reports of the Board of Controllers of Public Schools.
6. Brooklyn, Long Island, Sanitary Fair.
7. Smithsonian Report, 1867.
8. History of the Sanitary Commission.
9. Records of Metropolitan Fairs.
10. Medical Monographs.
11. U. S. Sanitary Commission : Works and Purposes.
12. Proceedings of the Academy of Natural Sciences. 14th November, 1867.

The following works from the Royal University of Christiana.

1. Meteorologisk Aarbag, 1868.
2. Thomas Saga Erkibyskups.
3. Quellen zur Geschichte des Tanfsymbols.
4. Frederiks Universital, 1868.
5. Index Scholarum.

6.- Le Glacier de Boium.

7. A Medical work with plates (coloured).

Recherches sur la religion première de la race Inde ; from the Ethnological Society of Netherlands India.

(Signed) ROBERT DAWSON,

Chairman.

General Meeting, 10th August, 1870.

Present.—Mr. R. Dawson, in the Chair, Messrs. J. Capper, F. Mackwood, G. Nicholls, W. Skeen, L. De Soyza, J. Mendris, J. Slorach, and W. V Legge, (Secretary.)

The proceedings of the last Committee Meeting were read by the Secretary and signed by the Chairman, and then a short report was read by the former for the benefit of those members who were present for the first time during this session, relating to the business done since the election of the present office-bearers in March last. The particulars of this are to be found fully recorded in the proceedings of the committee meetings held since that date, but reference was made here, more particularly, to the correspondence concerning the repairs to the Museum, and the long delay which had occurred before the work was commenced; to the appointment of a young man to act as Taxidermist, and his tuition by the Secretary; to the new Zoological collections commenced by the latter in March; and a hope was expressed that as the foundation of local collections had been laid, Members would take advantage of the fact and contribute towards them, particularly as by the employment of a Taxidermist, provision had been made for their proper care. Most of the common species of Birds and Butterflies around Colombo, had been collected by dint of shooting and netting in the Cinnamon Gardens and the neighbourhood of Cotta. Re-

ference was also made to the Library, and it was announced that the back Numbers of all the periodicals which were wanting to complete the respective series, had been ordered, but that as yet only those of the Bengal branch of the Society had been received.

The following papers were then read,

(1) Notes on the Geological Origin of South-West Ceylon, by H. NEVILLE, Esq., C. C. S.

(2) Notes on a Sannas by LIONEL F. LEE, Esq.

(3) A Translation of the Introductory Stanzas of the "Kusa Jataka," by LIONEL F. LEE, Esq.

(4) A Collection of Singhalese Proverbs by L. DE SOYZA, *Mudeliyar*

(5) Text, Translation of, and Notes on, an inscription at Welegama Wihare, by T. W. RHYS DAVIDS, Esq.

It was proposed that a sum of five pounds should be devoted towards rebinding those books in the Library which most required it.

The Secretary referring to the resolutions passed at a special General Meeting of June last, respecting the purchase of Buddhist Books, informed the meeting that a few had been ordered from Trübner and Co, the value of which amounted to little more than three pounds, and that a valuable work of Turnour's, "an Examination of Pali-Buddhist Annals," had been purchased from Mr. De Soysa at a cost of seventeen shillings. The Secretary informed the meeting, that Mr. Neville was in the possession of a quantity of card-board required for the shells and eggs in the Museum, and that he was willing to exchange it for its value in Journals. The consent of the Meeting was given to this arrangement.

The following presentations were then reported to have been made to the Society, viz :—

Library.

Journal of the R. A. S. Bengal from January 1865 to June 1870.

Museum.

A fine specimen of a Native Cat by Mr. F. W. Mackwood. Various Ceylon Birds and Butterflies by the Secretary.

The Meeting then adjourned, it being unanimously resolved to submit the above mentioned papers to the Reading Committee.

(Signed) ROBERT DAWSON,

Chairman.

Proceedings of a Conversazione held at the residence of Mr. R. V. Dunlop on the evening of the 10th August, 1871, C. P. Layard, Esq., in the Chair: present at the meeting about twenty members and their families and friends. The proceedings were commenced at 8-30 P. M. by the Secretary, Lieut. Legge reading a paper on the Geological Origin of S. W. Ceylon by H. Nevill Esq. C. C., S. in which the writer contended in opposition to the generally received theory, that this portion of Ceylon has been gradually upheaved from the sea. In support of this view he drew attention to the general step-like appearence of the country when seen from one of the highest points in the Interior, and then went on to prove, that the district was one of dolomitic and submarine origin by, tracing the connection between the coral reefs and rocky headlands of the coast, and the swampy regions and hillocks existing close to the shore; these, he pointed out, in course of time became Manaland and adjacent hills, as we advance into the interior, and were gradually transformed by the hand of man into paddy fields, which after a lapse of ages were, in their turn, upheaved in the form of patnas and open grassy glades in the forest.

Mr. Layard remarked that no doubt an elevation had taken place in some parts, but that he thought there would be found a corresponding depression in others, and that this, he had reason to

believe, was now going on at the East side of the Island.

Mr. Skeen in the course of some remarks on the subject, said that the "Ramayana" which was the oldest Indian Epic extant, contradicted Mr. Nevill's theory, for, in it attention was drawn to many places on the Southern coast of Ceylon which do not now exist.

Mr. Coomara Swamy said that the Lanka of that Poem was a myth, and that the Lanka referred to by the ancients no longer existed.

Mr. Wall said, that for his part, he was inclined to believe in the theory of gradual changes caused by slow elevation and depression, rather than of sudden alterations resulting from great catastrophes. After a few other remarks on the subject from several members present, the company proceeded to examine the various curiosities exhibited in the rooms. Among these were many objects of interest and value from the collections in the Society's Museum, together with samples from the new Zoological collections commenced by the Secretary in March last. These latter consisted chiefly of a number of Birds in the skin, a small collection of eggs and nests, including an interesting series of tailor birds' nests and some edible swallows' nests presented by the Revd. B. Boake, D. D., and a few butterflies and insects; together with the nests of the rufous grass warbler, *Cisticola shœnicola*, was exhibited a portion of the lining fabricated by the bird from the downy substance growing on the stalks of the guinea grass.

After some remarks by the Secretary on the nesting of this bird, Mr. Skeen exhibited the nest and young of the "Praying Mantiss" and gave an interesting account of the manner in which the singular structure was built, and of the first appearance of the larvæ after being hatched. After some little discussion on the subject, the company adjourned to a neighbouring apartment where refreshments were provided by the Treasurer, and the meeting terminated at half-past 11.

Committee Meeting, 12th September, 1870.

Present.—R. Dawson, Esq., Chairman. Messrs. J. Capper, W. Skeen, L. De Soyza, V. W. Legge, Secretary.

The proceedings of the last meeting having been read by the Secretary, and signed by the Chairman, the meeting proceeded to business; the Secretary reported that the repairs to the building had been completed, and that the work had been executed a satisfactory manner. The Elephant had been also hung in in the large hall, at an expense of about £1 10*s*. but as yet no vote had been passed to defray this expense.

The meeting resolved that the Secretary be authorised to pay the money from the Society's funds.

One or two little matters of business were then gone into, and the following items necessary to complete the arrangements of the Museum were then laid before the meeting, and the necessary expenditure for their execution was granted forthwith. The items were:

1—Two Tats for the front entrance to the Museum.

2—Canvas blinds for the standing venetians, to prevent rain and dust from beating through.

3—Two lights in the shade at the front entrance opposite the two new windows.

4—A Table for the Library.

5—A do. for the Taxidermist's room.

6—A glass window for the Library.

The Secretary announced that he had received a letter from the Revd. Dr. Boake, President of the "Committee on Papers," stating that he would no longer be able to act in that capacity, as he was about to leave Ceylon.

Proposed by the Secretary, and seconded by Mr. Dawson, that Mr. Capper be invited to fill the vacant post—Mr. Capper consented.

It was then resolved that Dr. Boake be written to, and the thanks of the Society conveyed him, for the long services he had rendered to it, and that he be invited to become a corresponding member of the Society on his departure from the Island. Should Dr. Boake consent to this, it was resolved that the Society's Journal should be regularly transmitted to him.

A letter was read from Lt. Woodward, forwarding an ancient Sinhalese Wedge, presented by Mr. E. Holland of the P. W. Department.

The Journal of the Society for 1847-48, the first of the series to be reprinted, was laid on the table, and the Secretary informed the meeting that it had been thought advisable to omit the plates which accompanied the original copy as they could not be executed for a less sum than seven or eight pounds.

The Meeting approved of this as Mr. Capper said the plates were of little intrinsic value.

The following presentations to the Society since the last Meeting were then laid on the table.

Museum.

A young Hog Deer, presented by Mr. Murdoch, P. W. Dep.

A young Alligator, caught in the Fort Canal. Presented by a Private of the 73rd Regt.

A fine specimen of a large Moth, *Attacus Ricini*. Presented by Mr. Skeen.

A few Ceylon Birds shot since the last Meeting. Presented by the Secretary.

Ancient Singalese Wedge from a Tank at Rugam. Presented by Mr. E. Holland.

Library.

Proceedings of Asiatic Society of Bengal, July and August, 1870. (2 Numbers.)

Annals of Natural History, August, 1870.

The following Oriental works, purchased from Messrs. Trübner & Co.

1—Travels of Fa Hian and Lung-yun.

2—Life or Legend of Gaudama, the Buddha of the Burmese.

3—The Modern Buddhist.

4—Essays on the Religion of the Hindoos.

5—Buddhaghosás Parables.

The "Foot-print of Buddha" had also been ordered, but was not yet published. It was expected in the course of a couple of months.

It was resolved, that in thanking Mr. Holland, he should be requested to afford the Ancient Sinhalese name of the Tank, together with any information in his power relative to the Ancient Ruins referred to in Lt. Woodward's letter.

(Signed) J. CAPPER.

Chairman.

Committee Meeting, 27th October, 1870.

Present.—Messrs. J. Capper, Chairman. R. V. Dunlop, W. Skeen, R. L. Brown, L. De Soyza, V. W. Legge, Secretary.

The Secretary read the proceedings of the last meeting, they were signed by the Chairman, and the meeting proceeded to business. In accordance with the desire expressed by the Committee at the last meeting, a letter had been written to Dr. Boake on his leaving the Island, and his answer was now read, in which he had consented to become a corresponding member of the Society.

A valuable present of some Fish from Puttalam and Batticaloa Lakes, called by the Natives Angúlúwa, which the Rev. Dr. Boake had made to the Society before leaving the Island, was then laid upon the table, and the following letter from Mr. Britto, concerning the habits of these fish, was then read.

SLAVE ISLAND, *January 22nd*, 1870.

MY DEAR SIR,—The specimens of fish I brought from Puttalam, are known to the Singhalese by the name of Angûlûwa. The Tamils call them Kèlûrû, of which, they say, no fewer than 18 species are to be found in the salt lake at Puttalam and the opposite shore of Akkaraipattoo.

They are most extensively caught in the months of December and January, when they approach the shore in large numbers. They do not however make their appearance when there is no rain. It is generally believed that when the eggs are sufficiently matured the mother transfers them directly from the womb to the mouth, (for which the fishermen believe there is a special arrangement in the internal formation of the fish). The eggs are then hatched in the mouth. Others again believe that the eggs are laid in the usual manner by the anus, and are received into the mouth of the male fish. The fish which carries the eggs in its mouth is found to be extremely lean and unfit for food. This probably arises from its inability to take food while the eggs remain in the mouth.

One species, known by the name of Kâlî Kèlûrû, is believed to be an exception to the general rule. It ascends fresh water streams and leaves its eggs there, without taking any care for their preservation. When the eggs are hatched, the young ones remain about a fortnight in the fresh water, and then leave it for the lake. Two years ago, when I found a number of these little ones in a pond adjoining my house at Mâmpûry, and which had a communication with the lake, I stopped the communication with a view to detain the fish in the pond. All the young ones died in about ten days; and I was led to believe that, though hatched in fresh water, they could not live there long. However, my experience in this respect has been entirely contradicted by the statement of fishermen who have seen and caught in different parts of the year, fish of this species in fresh water. This species is never known to attain a larger size than half a cubit in length.

Within the short stay of ten days I made at Puttalam and Akkaraipattoo this time, I was able to collect specimens of eight species. Some of them began to putrify, either from the injuries they received in the

catching, or from want of sufficient strength in the Arrack into which I put them, and I was obliged to remove them. At present there are only four species in the jar I left with you yesterday. The largest is known by the name Gorûkkâ or Pänäyàn Kálûrû. The next in size is Kûrûndàn Kélûrû. The remaining two species are Kàllà Kelûrû and Kàlí Kélûrû.

February and March are the months in which all the species of this Kélûrû kind hatch their eggs. The only exception being Kálí Kélûrû which lays its eggs in September and October.

The fishermen of Puttalam believe the *Silurus*, which they call Kàdûttàl, to be of the same tribe as the Kélûrû.

The accompanying list contains the names the species caught at Puttalam and Akkarupattoo, with the greatest size which each has been observed to attain.

Though the fishermen count nineteen species, I have no doubt but that closer observation would reduce the number of these and point out some of the so-called species to be no other than larger specimens of the smaller. There are known to be many instances in which the fry does not bear the least resemblance to the mother until it attains a certain age and size: and this may be true of some of the so-called Kélûrû species.

Yours very obediently,

C. Brito.

P. S.—Fishermen distinguish the various species by their colour and by the form of the head. Sometimes the difference is so imperceptible that an inexperienced man will not be able to see it even when pointed out.

List of Fish from Puttalam and Akkarupattu.

1. Kälû Kélûrû, (the thief), one cubit.
2. Mänäwâ Kélûrû, one do.
3. Pöthí Kélûrû, one yard.
4. Sâttän, (Sinhalese call it Thörâ Anguluwo) two cubits.
5. Görûkkâ or Pänäyän, one cubit.
6. Kälí Kélûrû, (the mud-Keluru) half a cubit.

7. Nédû Moontchy Keluru, (the long nosed) or Pänri Mookkän, (the pig-nosed) one cubit.
8. Kûrûndän, slightly larger than No. 6.
9. Sûngkân Keluru, (the pipe). Its sting is *very* venomous. Two inches.
10. Akkänäm Kélûrû, very rare. ¾ cubit: has three stripes on its back.
11. Olä wâlän Kélûrû, (having leaf-shaped tail) half a cubit. Extremely beautiful. The caudal fin is like the horse's mane. Found in salt water and in fresh water.
12. Pönä Kélûrû, (the carcass eater.) Only found in the rivers of South India. Perfectly white.
13. Nédûwâl Kélûrû, (the long tailed) two cubits.
14. Moontchy Kélûrûu, (having a remarkable snout) four cubits.
15. Uälämbän Kélûrû, one cubit.
16. Vän Keluru, (the white) resembles No. 8, but whiter.
17. Mûllí Keluru, (Mûllí is a kind of weed that grows in the marshes of the Puttalam lake) half a cubit. Resembles No. 1.
18. Mândän Kélûrû, two cubits. Resembles No. 5.
19. Nây Kélûrû, (the dog) one cubit.

N. B.—â is sounded like aa as *a* in *palm*.
ó „ a in *and*.
ä „ ü in *undo*.

The Treasurer stated that the Balance of the Society's funds was £102 5s. 10d.

The Secretary stated that he had written to Mr. Winter of Baddegamma, concerning a supply of spirits of wine, a large quantity of which was required in the Museum; it was a very expensive article to buy retail, and it could be had cheaper, and better in quality than elsewhere, at the Distillery at Baddegama.

It was decided to purchase thirty-five gallons in wood, as this was the lowest quantity that could be supplied. The price of the Spirit was 3s. 6d. a gallon in the wood.

The Secretary referred to the vote of £20 granted to him on the 11th May for re-fitting cases, and carrying out various alterations in the Museum, and stated that the items required had been executed, and that all arrangements in the fitting up of the room might now be considered as complete.

An account of the work and the cost of the same was then laid on the table. The expenditure amounted to £23 6s. 5d., and out of this the two centre tables of the room, together with a stand for reptiles and fish, and another for large shells, had been purchased. The Meeting resolved that the extra £3 6s. 5d., should be granted from the Society's funds.

It was resolved that the Society should purchase a copy of Mr. Childers' Pali Dictionary, in recognition of his labours in Oriental Literature, instead of applying to Government for it as had been decided at a former Meeting.

It was further resolved that the back Numbers of the "Annals of Natural History" should be ordered from Messrs. Williams and Norgate, and that the series when complete should be bound. The Committee decided to purchase a square piece of coir-matting for the Library, and strips of the same for various parts of the Museum.

The Secretary informed the Committee, that since they had last met, he had found it necessary, on consulting with several Members, to discharge the former Taxidermist, which was done accordingly on the 1st January; a young man of more promising ability, and with a taste for Natural History, which the former individual did not possess in the smallest degree, had been engaged was being instructed in everything that the latter had been taught, and he promised to prove equal to the work, having made considerable progress in his studies.

The following presentations had been made to the Society since the last meeting.

Two jars of Fish called Augulûwa from Puttalam and Batticaloa.
By the Revd. Dr. Boake, d. d.
Eight Birds in the skin, from about Colombo, by the Secretary.
(Signed) Robert Dawson,
Chairman.

General Meeting, 7th November, 1870.

Present.—Messrs. R. Dawson, Chairman, J. Capper, R. V. Dunlop, L. De Soyza, and V. W. Legge, Secretary.

The Proceedings of the last meeting were read and signed by the Chairman.

The following presentations since the last Committee Meeting, 27th October, were exhibited by the Secretary.

A young Cobra, found alive in Mr. Robert Dawson's boot, presented by this gentleman.

Two Lizards, presented by the Secretary.

A live Python. *Pythen molurus.* Presented by H. Bowman, Esq.

The thanks of the Society were ordered to be given to the donors of these articles, and it was decided that the disposal of the Python should be deferred to future consideration.

The following gentlemen were then elected Members of the Society.

The Lord Bishop of Colombo, proposed by Mr. Dunlop, seconded by Mr. Capper.

Colonel Cox, R. A., proposed by the Secretary, seconded by Mr. Dawson.

B. Young, Esq., 75rd Regt., proposed by the Secretary, seconded by Mr. Capper.

Ens. Thackwell, 75rd Regt., proposed by the Secretary, seconded by Mr. Capper.

L. Mercer, Esq., proposed by Mr. Dunlop, seconded by Mr. Ludovici.

A. L. Bailey, Esq., proposed by Mr. Capper, seconded by Mr. Davids.

The following Papers were then read :—

1—A continuation of Mudalyar De Soyza's paper on Sinhalese Proverbs.

2—Part of an unpublished chapter of the Mahawansa, by Mr. Rhys Davids.

3—Notes on the Ornithology of Ceylon, by Mr. H. Nevill, C. C.S.

4—Observations on the Birds of the Western Province, and a Note on the Hill Zosterops, by Mr. V. W. Legge.

5—An Account of the landing of the French Ambassador De Lannerolle, at Trincomalie, together with his Reception at Kandy, and also some history of his Descendants. Also a letter from the States-General to the Dutch Governor of Ceylon, giving an account of the siege of Vienna in 1684, intercepted at Trincomalie by the Kandyans. From a Sinhalese Translation, by L. Ludovici, Esq.

The Secretary was instructed to send all these papers to the Committee on Papers, for their approval or otherwise.

A letter from the Librarian of the Academy of Natural Sciences was then laid on the table. It appeared from the contents that it had been wrongly addressed to this Society, inas much as it referred to the non-receipt for some years past, of the Journals of the R. A. Society of Bengal. The Secretary however suggested that it afforded a good opportunity for placing this Society in communication with the Academy, which was a Scientific Institution of reputation, and recommended that the Journals of this Society should be sent to it, and that in return, the favour of their Journal should be solicited, it being a most valuable Periodical. It was resolved that this should be carried out.

A letter from Mr. Holland, in answer to a communication to him on the subject of the Tanks near Rugam, giving an interesting

account of the Ruins in the District, and accompanied by a copy of an ancient Inscription, was then read. It was resolved that it should be printed in the proceedings of the Society.

(Signed) A. B. FYERS, Capt. R. E.
Chairman.

Letter from Mr. C. Holland to the Secretary.

RUGAM, BATTICALOA, *October 28th*, 1870.

W. VINCENT LEGGE, LT. R. A.

Hon. Secretary, Ceylon Branch R. A. S.

SIR,—I have been prevented from answering your letter previously by pressure of business, I now send a short account of those ruins in this neighbourhood with which I am acquainted. It is quite possible that there may be many others of more importance, as I had been here for more than a year before I heard of those I speak of, I need scarcely remark that the natives are quite apathetic on the subject of antiquities.

The Tamil invaders and settlers of Batticaloa appear not only to have entirely rooted out the indigenous population, but also to have depopulated a belt of country varying from 20 to 40 miles in width, which still remains almost entirely uninhabited, and lies between them and the descendants of the Sinhalese they dispossessed. This tract consists of dense forest, interspersed at rare intervals with a few small open spaces. Every acre of this now abandoned country appears to have been once cultivated. Go where you will in the forest, you will be almost certain to find innumerable evidences of a once dense population, in the shape of old tank embankments, broken pottery, dressed stone, and the like,—while every rocky eminence is crowned with the ruins of a temple, or at least of a dagoba. In the immediate neighbourhood of Rugam there are two such hills (or rather rocks, for they are almost denuded of soil) having the remains of old temples on their summits. These ruins though comparatively insignificant, may perhaps be of some interest to the student of the history of this district. One adjoins the boundary of the Tank on the south-west, and the summit is reached by more than one

hundred small steps cut in the rock. The first object seen is a brick and mud wall which, being sheltered by a rock, is still quite perfect. The other ruins can scarcely be classified. They spread along the summit platform for a distance of several hundred yards, and in many instances, their foundations can scarcely be traced. Pillars and their capitals are profusely scattered about in all directions, with one or two flat stones having the common pattern engraved upon them. Perhaps the most remarkable stone is one which appears to have been the sill of a door and has receptacles for the pivots to work in. There are no inscriptions. It is curious to observe that while the carved stone is woefully weatherworn, the bricks, presumably made at the same date, still retain the mark of every little flaw and inequality of the mould in which they were cast. There is one other object worthy of remark. Most of the worked stones found in this neighbourhood, have obviously been obtained by wedging, —the wedge marks being still plainly distinguished. But there is, close to these ruins, a long narrow stone only half detatched from the rock by the laborious process of chiselling a groove round it, this too at a spot where the formation of the rock offered peculiar facilities for wedging the piece out.

Further towards the south-east, and close to the new road from Badulla to Batticaloa, is a similar rock, on which are the ruins of a Dagoba, while the capitals of pillars scattered about, signify that other buildings once existed or were in process of being built. The only thing worthy of notice here is a long inscription graven on the rock. This inscription is in an obsolete alphabet, and is so weatherworn that I fear it would be impossible to decipher the whole of it, I send some specimens, by which a savant perhaps, might be able to decide the nature of the alphabet and the language in which it is written.

The fact that in most of the ruins hereabout, dressed stones still remain at the place where they were quarried, inclines me to the belief that the Tamil invasion burst on the country whilst these buildings were in progress, and that they were never completed.

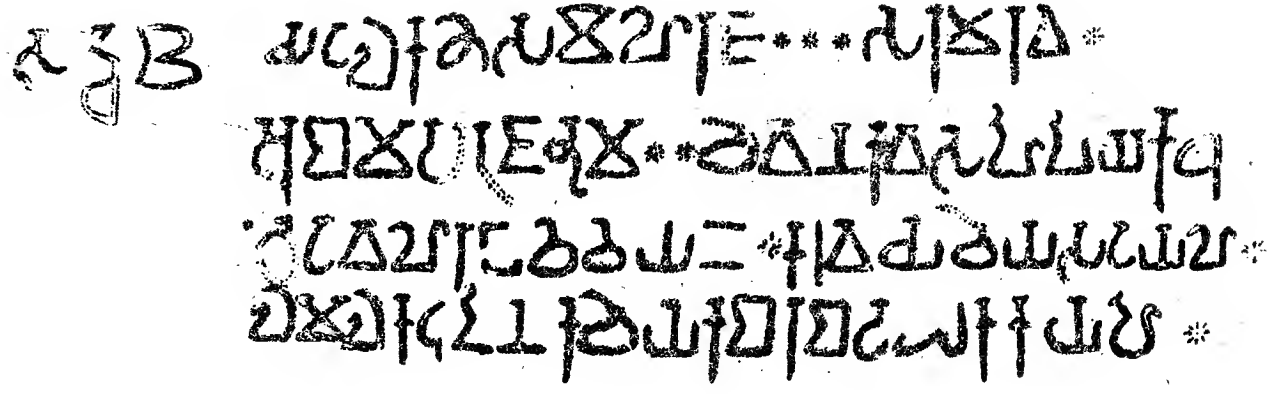
The natives without exception are firmly of opinion, first, that all these ruined tanks and buildings were the work of Giants of

immense stature; and secondly, that every ruined Dagoba contains a hidden treasure, though they are restrained by superstitious fears from searching for it. Every embankment, however small, that is not of modern date, is "Giant's Bund"; whilst I was assured by one of the neighbouring Headmen, that the inscription previously spoken of related to the locality of a hidden treasure. All my arguments to the effect that a person hiding his money would scarcely proclaim his secret by engraving a history of the transaction on the most prominent rock he could find, were quite lost upon him.

I have made enquiries as to the ancient name of this tank. The nearest resident Sinhalese say that its name was always, as it is now, the Rugama Wewa. It appears to have been comparatively insignificant, and the one further to the westward, near Tampitiya, must have been of much more importance. This tank (the Tampitiya one) has an embankment about a mile in length, and of considerable height. The sluice tunnel theugh the Bund is of dressed stone, and still in perfect preservation. There is no inscription. There are innumerable smaller tanks to be found everywhere in the depths of the jungle, but generally of small size. Their area averaging, I should think, from 10 to 50 acres. To give an idea of the number of these smaller tanks, I may mention that I know of three (there may be many more) within a circuit of two miles from this place.

Yours faithfully,

E. HOLLAND.



PORTION OF AN INSCRIPTION on a rock at Rugam.

NOTE.—The stars indicate that characters which were altogether indistinct have been omitted. The portions marked with dotted lines could only be guessed. The inscription comprises three more lines, but with the exception of one or two at the end of each, none of the characters can be traced.

Special General Meeting, 8th December, 1870.

Present.—Captain Fyers, (Chairman.) Messrs. A. Bailey, R. Dawson, J. Capper, W. Skeen, L. Ludovici, J. Britto, Ensigns Young and Thackwell, 73rd Regt., Lt. Legge, Secretary.

After the Proceedings of the last meeting had been read by the Secretary and signed by the Chairman, the following presentations were announced.

A collection of Snake Charms in use in Ceylon, by W. S. Boake, Esq.

A number of Birds and Butterflies, by the Secretary.

A bottle of Citronella Oil, by R. Dawson, Esq.

A pair of rare Lizards, by Mr. Catto, Teldeniya.

Two Red Insects, commonly called Cochineal Insects, by R. Young, Esq., 73rd Regt.

The Secretary referred to the unpublished chapter of the "Mahawanso" submitted at the last meeting by Mr. Davids, and which had been returned to him, inasmuch as it appeared to be one of those already translated by the late Mr. Turnour; and asked the opinion of the meeting whether or not it would be advisable to write to the Executors of the late Mr. Turnour, with a view to having his unpublished MSS. printed in the Journal. It was resolved that this should be done.

The Secretary then informed the meeting that he had received from Messrs. Trübner & Co. a list of the publications of the Zoological Society of London, with the prices at which they were sold to the public, and that from it, it appeared that the annual publications amounted to 14/6, he recommended that the Society should take in the work for the Library. This resolution was carried.

The following papers were then read:—a Translation of the "Balatasaro, a Pali Grammar," by Lionel Lee, Esq.: "On the Origin of the Buddhist Foot-print on Adam's Peak," by W. Skeen, Esq. These

were ordered to be sent to the Reading Committee for approval. Mr. Ludovici then read an Introduction to the paper he had laid before the last meeting.

The following gentlemen were then ballotted for, and duly elected members of the Society, viz:—

Mr. E. Holland, proposed by the Secretary, seconded by Captain Fyers.

Mr. Forbes Lawrie, proposed by the Secretary, and seconded by Captain Fyers.

The Secretary announced that the Journal would most probably be published in January.

Anniversary Meeting, 16th January, 1871.

PRESENT.—The President, Captain Fyers, R. E., in the chair, Messrs. R. V. Dunlop, R. Young, 73rd Regt., F. Mackwood, J. Grinlinton, L. Ludovici, R. Dawson, J. Ferguson, W. Ferguson, Aln. Bailey, J. Alwis, L. de Zoysa, W. Prescott, W. Skeen, J. Capper, and W. V. Legge, the Secretary.

The meeting commenced by the President reading the Annual Address, as follows :—

GENTLEMEN,—I congratulate you upon the improved state of the Society's Museum and Library within the last few months, and for the additional interest that appears to be taken in its proceedings since it has been resuscitated.

Our thanks are due to the Honorary Secretary, Lieutenant Legge, for the zealous and intelligent manner in which he has fitted up the Museum, classified the various objects of interest in it, and the Books in the Library, and for his exertions in endeavouring to induce members to attend the meetings, and to write papers to be read at them. We are, I am sorry to say, about to lose his services, as he is under orders to proceed shortly to Galle.

As you are aware, the Society was established in 1845 ; the opening address was delivered by the Hon'ble Mr. Justice Stark, at the general meeting held on 1st May of that year, and by a unanimous vote of a special meeting of the Royal Asiatic Society held on the 7th February 1846, it was declared a branch of that Society. At first the papers sent in were numerous and interesting, but after a time, when the novelty had worn off, they were received in smaller numbers and at greater intervals, subscriptions were not paid up, and the meetings were badly attended. I will not go into all the probable causes of this falling-off of co-operation amongst the members, as I hope we have now made a fresh start, and that all who can will aid in carrying out the objects aimed at.

We have sustained a great loss during the past year in the departure for Australia of the Revd. Dr. Boake, one of our Vice-Presidents. Dr. Boake was one of the oldest members of the Society, he invariably took a great interest in its proceedings, and was a regular attendant at the Meetings, which he did all in his power to render useful and attractive. I have no doubt however, that, although in a distant land, he will correspond with us and endeavour to forward the objects of the Society.

As stated in the Rules and Regulations, the design of the Society is to institute and promote enquiries into the History, Religion, Literature, Arts and Social Condition of the present and former inhabitants of this Island, with its Geology and Mineralogy, its Climate and Meteorology, its Botany and Zoology. These are all most important subjects of study and investigation ; but success can only be obtained by all who are able to do so heartily co-operating with the Society. It is a mistake to suppose that it is only those who have had a scientific training who can be of use. There is no one who cannot aid our objects by taking up a particular branch of science, devoting himself to it, and send-

ing in any specimens or other information relating to that particular branch which he may have obtained. He need not fear to do so, because he may be unacquainted with technical terms, but a simple statement in his own language of where and under what circumstances the information was obtained will always be thankfully received.

Again, those who are unable personally to investigate any subject, can aid the Society by becoming members, and thereby contributing in a pecuniary point of view towards the expenses incurred by those who have time and opportunity for doing so. While on this point let me urge upon all the absolute necessity of paying their subscriptions punctually and regularly, there are many who have every intention of being regular in their payments, but who do not happen to find it convenient to pay when called upon to do so, and subsequently forget to send their subscriptions to the Treasurer; or are away from Colombo when the Clerk calls a second time, and the latter neglects to call upon them again, and so the subscription is not paid.

The expenses of the Society are considerable, Papers have to be printed and bound, Books to be bought, and Salaries to be paid, the Specimens in the Museum preserved, and if those who are on the list of members neglect to pay up, debts have to be incurred, and the work of the Society is stopped.

There are at present 133 members belonging to the Society, of whom 21 have joined during the session. The expenses during the past year were £168 15*s.* 4*d.* and there is a balance in hand of £95 13*s.* 4*d.* If we consider how interesting and instructive the different subjects of investigation are, I am sure there is no one who would not willingly give the small sum required per annum to aid the labours of those who are working with us.

It is very desirable that members and their families should take more interest than they do in the Museum of the Society,

they should visit it frequently, inspect the specimens in it, endeavour to instil a spirit of enquiry amongst the younger members of the community; and see for themselves what trouble is being taken in making collections and classifying all objects of interest. I hope the present Museum is only the nucleus of a much larger one to be established hereafter.

The Library contains many valuable books of reference, and will I hope be more extensively made use of after members have visited it, and seen a list of the works it contains.

The present accommodation is extremely limited, in fact much two small for the specimens in the Museum and the books in the Library: and the room in which we meet can only accommodate so very few that we have when a large attendance is anticipated, as on the present occasion, to meet elsewhere.

Any one who has travelled much in this Island, must have been struck by the remains of ancient Cities, Temples and Irrigation works which he meets with in all parts. I know of nothing more touching than to wander amongst the ruins of some of these cities. The silence is so marked, the utter desolation so apparent, and the contemplation of the great changes that have taken place in what was formerly a populous city, inhabited by thousands of human beings, but now taken possession of by the wild beasts of the forest, engenders feelings of sadness and deep thoughtfulness. I know of no place in which this feeling is so strongly developed as at Pollonnaruwa, where are still buildings in a wonderful state of preservation, testifying not only to the Architectural taste of those who designed them, but to the excellence of the skilled workmen who carried out the designs. Bold cornices and handsome plinths, wonderfully cut landings and janiters and steps, collossal figures cut out of solid rock, columns with their capitals, dagobas, temples, &c., are met with everywhere, and the thoughts are at once turned into the channel of con-

jecture as to what became of the large population which must have resided there, and how it is that the city has remained so utterly deserted ever since its inhabitants were driven out. This is only referring to Pollonaruwa, but there is the more ancient city of Anuradhapura, abounding in objects of Archæological interest, and many other cities in every part of the Island, and singularly shaped rock temples, with inscriptions on them in ancient characters, are scattered all over the jungle.

Then, again, the traveller comes across tanks of all sizes wherever he goes. Maha Wewa and Tissa Wewa at Anuradhapura, Kandelai, Minniri, Giretelle, Kowdellai, Topare, and a network of similar works in the Northern Province, along the Central road, and down in the Trincomalee and Batticaloa Districts, round by Galle and Kerinda to Hambantotta, including the ancient city and tank of Tissa Maha Rama, and others in various parts of the Southern Province, and also in the Western and North-Western Provinces, up in the Puttalam District at Pomparipu, and throughout the Demala Pattus, &c. There are not only tanks but remains of masonry dams across rivers, such as the Yaccabendaella over the Maha Oya below the Giriolle ferry; a dam over the Kalaar between the Puttalam and Anuradhapura Districts, another across the Kirinde River to supply Tissa Maha Rama Tank, &c., and many others too numerous to enumerate on this occasion; there are also Canals of various lengths and sizes, excavated at a great extent of labour, but all testifying to the great value attached by the ancient inhabitants of the Island to irrigation. I have referred to so many of these works to shew what subjects of interest there are in our forests, and how amply a visit to them would repay any one of an enquiring turn of mind,—what pleasure would be experienced in tracing out the history of each city and tank, in finding out how the enormous population employed on each work was fed, and how the large blocks of stone

of which some of the works are constructed, were transported from the quarries and placed in position.

The bunds of some of the tanks are of great size, and pitched on the front or tank side with large squared blocks of stone in courses, there are also stone sluices—some double, some single—leading under the bunds, and, communicating with them from the bund above are, in most cases, square wells or shafts called bisokutuwos. At the present day, almost all the lands which were formerly, irrigated by these works—to execute which there must have been an immense number of labourers—are overgrown with jungle, and the copious supplies of water contained in the tanks are of little if any use.

It appears strange that vast tracts of rich land with a perennial supply of water, should remain uncultivated and uninhabited, while there is such a dense overcrowded population in Jaffna, but the people cannot be induced to colonize, they prefer remaining in penury in their own villages, to settling where they would be well off and well fed.

An Archæological Committee has been appointed by Government to explore, take photographs, decipher inscriptions, and endeavour to trace the history of each work in various parts of the Island. Mr. Lawton of Kandy has been appointed Photographer to the Committee, and has already taken very good photographs of the principal buildings in Pollonaruwa ; of Minniri, Giretella and Topare Tanks ; of the ancient fortified rock of Bijeri and some of the most important objects of interest in Anuradhapura. The Committee are endeavouring to obtain from ancient works, and inscriptions, the date of construction and history of each building and work, and we hope shortly to have completed albums containing both views and descriptions. I hope that any gentleman who has a taste for investigations of this nature will co-operate with the Committee, and give us the benefit of his experience and knowledge.

I have briefly alluded to the field for research in the ancient Architecture of this island. There is also the history of its inhabitants, the Sinhalese, the Malabars, the Moormen, and the ancient Veddhas—supposed to be the aboriginal inhabitants of the Island. It is curious to see how wild and timid the last still are, and how much they fear the approach of strangers. I do not refer to those known as village Veddahs, but to those who inhabit caves and mountains—who are armed with rudely made bows and arrows and axes, who live almost entirely on what they are able to kill, and who are frequently maimed by the attacks of bears. It would be extremely interesting if more information could be obtained respecting these curious people.

I am at present making arrangements, under the orders of Government and at the request of Professor Huxley, for having Photographs taken of all the different races and castes in the island, for Ethnological puposes. There is some difficulty in getting subjects, but I hope that it will shortly be overcome, and that ere long we may be in possession of a valuable collection of accurate pictures. The investigation of the arts, sciences and religion of the ancient inhabitants of the island is also replete with interest, and would amply repay the time and labour devoted to it.

In Zoology and Botany there is a wide field for research, as well as in Geology and Mineralogy ; and the Meteorologist may be of special use not only in determining the average rainfall in various Districts, the effect (if any) on it of extensive clearings, the mean temperature, pressure and hygrometrical condition of the atmosphere and the direction of its currents, but in being able to know when a rotary storm is taking place in the Bay of Bengal and thus to be in a position to give notice by telegraph to Madras and Calcutta of the probable time of its reaching those stations. The Government have within the last two years established

Meteorological Observatories in various parts of the Island, and I have no doubt whatever that if the instruments are properly looked after, important results will be obtained. It is not sufficient for those who have to record observations simply to act as machines, but the instruments must be watched, and any variation in the normal condition of the atmosphere carefully noted and considered.

Comparatively speaking, a few years ago the hurricanes of the tropics, those fearful scourges which caused the regions in which they prevail to be so much dreaded by sailors, were supposed to blow in straight lines and not be influenced by any laws; but the labours of Redfield, Reid, Thom, Piddington and others, have proved that they are gigantic whirlwinds rotating and progressing at the same time, the barometrical pressure being greatest and the wind least at the outer circles, the former gradually diminishing, the latter increasing, until the vortex is approached, near which the barometer is at its lowest, and inside which there is a perfect calm in consequence of the wind ceasing to blow on the surface, but rising up vertically in spiral gusts. The strength of the wind and the pressure are in inverse ratio from the circumference to the centre, in which there is a turbulent confused sea, and around which the clouds resemble a dense black wall; but occasionally there is a gleam of light overhead in the funnel through which the wind rushes from the edge of the vortex in its upwards course. At present, from the knowledge that these tropical storms follow certain fixed laws, they can be avoided or sometimes made use of. They always rotate in the same direction in each hemisphere,—i. e. with the hands of a watch in the southern hemisphere, against the hands of a watch in the northern hemisphere; they progress at the same time in certain courses, which are approximately known. I traced out about a dozen rotary storms in the South Indian Ocean while I was stationed in Mauritius, from their commencement to their ter-

mination, and invariably found that they followed the same laws. The Commander of a vessel by watching the barometer and the direction of the wind and clouds, can tell the bearing of the storm from his position, and whether the centre is approaching him, or whether he is running into it. The rate of progression of these strange masses of rotating air is variable, some progress at the rate of only 2 or 3 miles per hour, others at 40 or 50 miles, and others again are quite stationary. When following in the wake of a storm if the vessel be going faster and running into it, her Commander has only to wear or heave-to and let the storm get away from him, but the best and most judicious course to adopt when in front of a storm, i. e., when it is coming down on a vessel, is more difficult, and requires careful consideration and judgment.

The Law of Storms is most important to navigation, and consequently to commerce, and I should like to see it more extensively and carefully studied than it is, in order that additional information may be obtained on the subject, and a mass of data collected respecting each cyclone that takes place in our neighbourhood.

As there is other important work to be done, and our Secretary's Report to be read, I have only very briefly referred to the various subjects of interest and importance which it is desirable to investigate. I hope that the year upon which we have just entered may be a favorable one, and that those members who can, will contribute papers, attend meetings, and co-operate heartily in doing all in their power to promote the interests of the Ceylon Branch of the Royal Asiatic Society.

The Annual Report was then read by the Secretary, and on the motion of Mr. R. V. Dunlop, seconded by Mr. J. Capper, it was adopted and ordered to be printed.

Annual Report.

In looking back upon the progress made during the past sessions, which commenced on the 12th March last, and in viewing the prosperous state of affairs at its close, on this day, the Committee cannot but congratulate the Society on the new era which has dawned upon it. It is a subject of much satisfaction that the ideas propounded in the last annual report concerning the signs, then visible, of a probable resuscitation in the affairs of the Society, have been fully realized, and that the termination of this year should find the Institution in its present healthy condition. The number of meetings held during the past twelve months, the transformation of the Museum from its former dilapidated condition into what it now is, the commencement of new collections in all departments of natural history, and the publication of a copious Journal so soon after the issue of the last number, all testify to the fact that a new impetus has been given to the labours of the Society.

Committee meetings were held on the 24th March, 11th of May, 7th of June, 28th of July, 12th of September, and 27th of October. The first quarterly general meeting which should have been held in May did not take place, as there were no papers for perusal; the second and third meetings of the session were held on the 10th of August and 7th of November, respectively, on both of which occasions interesting papers were submitted for perusal, and members elected. A special general meeting was held on the 9th of June, for the purpose of revising and adding to the Society's Rules and Regulations, a second was assembled on the 8th of December for the reading of two additional papers submitted for publication in the Journal, and finally a Conversazione at which a number of members and their families were present, was given at the residence of Mr. R. V. Dunlop, to discuss a paper, submitted by Mr. Nevill on the Geology of South-West Ceylon. The first matter the Committee turned their attention to at the

commencement of the Session, was the dilapidated state of the Museum and the collections contained in it; a letter was written by the Secretary requesting the Government to repair the building, the result of which was that an estimate of the work required to be done was taken; after some little delay this was sanctioned, and the repairs were carried out and completed by the beginning of September. The appearance and condition of the Society's premises has been thereby greatly improved; besides the putting up of new ceilings, repairing the floors, &c., the light was altered, and much additional wall space accrued therefrom; the smaller room was turned into a Library and Taxidermist's Studio, and the large hall devoted entirely to the purposes of a Museum.

In spite of these improvements, however, the Committee would here call attention to the insufficient space in both the Society's Library and Museum: in the former there is not room to hold a General Meeting should many members happen to be present, while as regards the latter, the space is totally inadequate for the reception of those collections which, with an Island so rich in natural history products as ours, will certainly be forthcoming, should the public of Ceylon take any interest whatever in the researches of the Society. We have not room, for example, to make a collection of our indigenous Mammalia, nor have we space for those samples of raw products, &c., which it is so desirable the Society should be in possession of.

With regard to the collections which formerly existed in the Society's Museum, and the greater part of which were transferred from the Military Medical Department, the Committee have to report that, on examing them, the Secretary found that they were in the most dilapidated condition, arising from the influence of climate combined with a total want of care. The birds and animals, most of which did not belong to our indigenous fauna,

were completely decayed; the small collection of insects and butterflies was if possible in a worse state, and the reptiles were falling into the same condition, owing to the evaporation of the spirit, arising from the bottles not being properly closed.

The birds, animals and insects were accordingly removed from the Museum, and fresh collections were forthwith commenced by the Secretary. It was thought desirable to prepare the birds in the skin, as in that state they are better fitted for scientific examination, besides being more capable of preservation in this climate than if they were mounted. Collections of butterflies and birds' eggs were likewise commenced, and those objects which were in sufficiently good condition to be retained were to a certain extent arranged and classified. About £40 was spent in refitting, remaking, and constructing new cases and stands for the Museum; and a large quantity of spirits of wine was purchased at wholesale price, with a view to adding largely to the Society's collection of reptiles and fish, in both of which classes our Island is so rich. The additions made during this session to the several departments in the Museum are as follows:— Birds, 97 species.

Comprising

Raptores.....	,,	8	,,
Insessores and Scansores	,,	69	,,
Gemitores	,,	1	,,
Grallatores	,,	12	,,
Natatores.....	,,	7	,,

Although there are several rare and valuable specimens in this collection, the majority are the more common sorts, procured in the immediate vicinity of Colombo. Circulars have been sent to those gentlemen in the Coffee Districts who are known to interest themselves in Natural History, and it is to be hoped that ere long the result will be beneficial.

The collection of birds' eggs has not progressed so rapidly,

and numbers only 26 species. So little is known as yet of the Oology of Ceylon, that if the Society can succeed in making a large and well identified collection of eggs, it will be of very great value. It is contemplated to send round Singhalese lists of the birds inhabiting the various districts in this part of the Island, to the several Modliyars, requesting them to procure their eggs for the Museum. Of butterflies and coleoptera seventy-four species have been collected, but the latter have not as yet been named. Seven species of reptiles and fish have been added to the former collection, and among the latter are a number of the curious fish called by the natives "Anguluwa," collected at Putlam and Batticaloa, by Mr. Britto, and presented by the late Vice President, Dr. Boake, D. D., on his leaving the Island. The Society's collection of shells, which were sent last year to Mr. Nevill for the purpose of being named and classified, were received some months ago, and are now remounted in two cases made for the purpose. Mr. W. Ferguson has kindly named the snakes in the Museum, and there now remains only the Society's large collection of minerals and geological specimens to be classified. It is very much to be hoped that some members will be able to devote a little time, during the next session, to this interesting department. It will be seen from this short recapitulation that the collections in the Museum are slowly progressing, but a long time must necessarily elapse before they can be raised to the standard of excellence required. The Committee therefore earnestly hope that there will be found in the ranks of the Society many Members able and willing to contribute towards the Institution, so that it may become, ere many years have passed away, entirely illustrative of the vast Natural History resources of the Island, and may prove a source of knowledge and instruction to those among the rising and learned generation who may be possessed with a desire to study the great Book of Nature.

A salary of £3 10s. was offered in March last for the services of a young man to act as Taxidermist ; a number of Candidates presented themselves, from among whom one was chosen, and instructed by the Secretary in his profession ; he continued some months in office, and was then discharged, as he did not prove himself sufficiently fitted for the post. A second candidate was then employed, and instructed in the same manner as the first: he continnes up to the present time in the employ of the Society, and is now able to skin and stuff pretty well, although he has not progressed sufficiently to be taught the art of "setting up." It is much to be desired that members and their families would visit the Museum, and view the objects of interest in the possession of the Society; by this means an interest will be created in the work that is being carried on, the result of which cannot but prove beneficial to the progress of the Institution. The Library, in which are contained many valuable works of reference and interest,—such as "Fergusson's Tree and Temple worship," and Lt. Coles' work on the ancient Buildings of Kashmir, will repay a visit. It has been enriched during the past year by the addition of 52 volumes, pamphlets and periodicals, besides the Journal of the Royal Asiatic Society of Bengal for the past four years. Out of this total, twenty-six works have been presented, chiefly by the Societies and learned Institutions in Europe and Amercia with whom this Society is in communication. The Smithsonian Institution, with its usual liberality, sent ten different publications in return for our Journal of 1867-70. Among the remaining presentations must be noticed the work above mentioned on the ancient Buildings of Kashmir, presented by the Secretary of State for India, and illustrated by a number of beautiful Photographs.

At the commencement of the session it was found that the journals and periodicals from other branches of the Society,

usually sent in exchange for our publications, had not been received for some years past; efforts were made to call them in, and at the present time the different sets are for the most part complete. The journals, owing to us, from the Parent Society have, however, not yet been received, owing to some delay on the part of the agent in London, employed to transmit them. Several letters have been written to the Bombay branch of the Society requesting the favour of their publications, in return for those of our branch, but no acknowledgment of them has been received, leading almost to the supposition that the Institution no longer exists. Correspondence has been entered into, during the last half year, with the Academy of Natural Sciences, Philadelphia, one of the most distinguished learned bodies in America; the Society is in possession of some of their publications and as our journals for 1866 and 1867-70 have been forwarded to them, a complete set of their valuable proceedings, which appear monthly, is shortly expected.

With regard to the literary researches of the Society during the past session, the Committee have to report that considerable progress has been made. Mr. Davids and others have occupied themselves in deciphering and translating some of the ancient inscriptions which abound throughout the Island, and which taken in connection with the past history of the country, are of such inestimable value; a worthy testimony of their labours will appear in the forthcoming Journal, which, it is to be hoped will not prove inferior, in point of value, to any of its predecessors. It will contain also several papers, of interest to Oriental Scholars, by Mr. Lee, and the elaborate essay by Mr. W. Skeen on the "Foot print" at Adam's peak, appearing, as it will do, smultaneously with Mr, H, Alabaster's work on the Siamese "Foot print," must needs prove of considerable worth to those who are paying attention to this subject. Among other contributions are a col-

lection of Sinhalese Proverbs by Mr. de Zoysa; an entertaining account of several facts connected with the modern history of the Island by Mr. Ludovici, a treatise on the Geology of Ceylon by Mr. Hugh Nevill, and finally some Notes on the Natural History of the Island, which may prove of interest to ornithologists.

It was hoped that the Journal would have been published in time to lay before this meeting; much delay however has occurred in the printing, and some weeks must elapse before it is issued. The Proceedings, which will immediately be put in hand, as a second part, will contain a lithograph of some ancient characters composing part of an Inscription found by Mr. Holland, a member of the Society, in the vicinity of Rugam. A letter from that gentleman, descriptive of the Sinhalese archæological remains in the surrounding district, will also accompany the drawing.

The Society has lost a staunch supporter and friend by the departure of the Rev. Dr. Boake from the Island; he has, however, given proof of a continued interest in the labours of the Society, by accepting the offer of the Committee to become a Corresponding Member. During the year 21 members have been added to the Society's list, and several having left the island are no longer belonging to it. Those members also who have refused to pay their arrears and subscription towards the Society's funds, have according to Rule 8 of the "revised Rules and Regulations," ceased their connection with it.

The outstanding debts, as handed over at the commencement of the session, by the late Treasurer, Mr. O'Halloran, amounted to £107, and consisted entirely of arrears due by members; every effort has been made by the Treasurer and the Secretary to call in this money, and the result has been very successful. The thanks of the Committee are especially due to those members who, unmindful of the dormant state of the Society during the past two or three years, when they saw that efforts were being made to resus-

citate it, paid in arrears, extending, in some cases, over a period of five years.

The Treasurer's account is as follows:—

Dr.	£	*s.*	*d.*
To Balance received from previous Treasurer	127	11	8
„ Entrance fees	16	5	6
„ Subscriptions paid.....	114	6	6
„ Journals sold.....	3	4	0
„ Interest, &c.	1	7	5
	£262	15	1

Cr.	£	*s.*	*d.*
By paid for repairs to, improvements in, and necessaries for Museum	46	14	11
„ „ Wages.....	42	3	4
„ „ Printing Journals, Rules, &c.	58	14	0
„ „ Additions to Library.....	8	13	10
„ „ Statiouery, Postages, Advertising, Taxes, &c.	12	12	2
„ „ Balance at O. B. C., and Cash in hand.....	93	16	10
	£262	15	1

It will be seen therefore, that after an expenditure of more than £160, there is a balance left to the Society's credit of £93 16s. 10d. This would not have been the case had not a large balance been handed over by the late Treasurer; the expenses incurred have been very heavy, but this is the natural result of the Society's resuscitation, and so long as it continues to exist in something more than name only, a large annual expenditure cannot be avoided. The Journal, now in hand, will cost about £25 or £30, and a sum of £70 is required to replace the set of Journals which are now out of print. Besides all this, there is a constant monthly outlay, arising from the Taxidermist's salary, and the sundry ex-

penses, impossible to be prevented, in keeping up the Museum in such a climate as this. It is therefore positively necessary that members should be particular in paying their subscriptions with regularity, if this is not done as long as the Society continues in working order, the balance will dwindle down, until at the last there are not sufficient funds to cover the cost of printing the Journal.

A vote of thanks was proposed by Mr. R. V. Dunlop, to the Secretary,—for the exertions he had made, since coming into office, to resuscitate the Society, by reorganising the Museum, and commencing new collections in it, by improving the state of the Library, by his endeavours to induce members to write papers for the forthcoming Journal, and by the assistance he had rendered him, in calling in the large amount of arrears which had been paid during the session. This was seconded, and passed unanimously.

The Secretary announced to the meeting that he had been ordered to Galle, and would be obliged to resign his office of Secretary. The following office-bearers for the ensuing session were then elected by the meeting.

President.

Captain FYERS, R. E.

Vice-Presidents.

C. P. LAYARD, Esq.

R. DAWSON, Esq.

Treasurer.

R. V. DUNLOP, Esq.

Hon : Secretary.

A. BAILEY, Esq.

Corresponding Secretary.
W. V. LEGGE, Esq.

Librarian.
Mudliyar L. DE SOYSA.

Committee.
J. CAPPER, Esq.
R. YOUNG, Esq., 73rd. Regt.
K. JONES, Esq.
F. W. MACKWOOD, Esq.
L. LUDOVICI, Esq.
W. SKEEN, Esq.

A vote of thanks to the retiring office-bearers was then proposed by Mr. Mackwood, and seconded by Mr Grinlinton.

The meeting then resolved into an ordinary Quarterly Meeting. Captain Fyers, R. E., in the Chair. The following presentations since the last meeting were announced.

MUSEUM.

2 Purple Herons.....(*Ardea purpurea.*)
1 Black Bittern.....(*Ardetta flavicollis.*)
2 Crested Tern.....(*Thalasseus Cristatus.*)
2 Lesser Sea Terns.....(*Thalasseus Bengalensis.*)
2 Water Hens.....(*Gallinula Phœnicura.*)
1 Wood Swallow.....(*Artamus fuscus.*)
by the Secretary.
1 White-winged Black Tern. ..(*Sterna leucoptera.*)
by F. Holdsworth, Esq.
2 Inscriptions on Stone, by T. W. Rhys Davids, Esq.

Also the following addition, by purchase, to the Library.
Calcutta Review, 4 yrs. 1867 to 1870.

The thanks of the Society were ordered to be given to the donors of the above presentations.

The following gentlemen, desirous of membership, were then duly elected.

G. E. Worthington Esq., C. C. S., proposed by T. W. Rhys Davids, Esq., seconded by the Secretary.

E. Hartshorne, Esq., C.C.S. proposed by the Secretary, seconded by J. Capper, Esq.

Dr. M. L. Bartholomeusz, Asst. Col. Surgeon, proposed by J. Drieberg, Esq., seconded by W. Ferguson, Esq.

A. H. Thomas, Esq., proposed by W. Ferguson, Esq., seconded by the Secretary.

Halliburton M. MacVicar, Esq., proposed by J. J. Grinlinton, Esq., seconded by F. W. Mackwood, Esq.

Doctor Coghill, proposed by J. Capper, Esq., seconded by W. Skeen, Esq.

J. D. Sellar, proposed by W. Skeen, Esq. seconded by W. Ferguson, Esq.

The Secretary then read a letter from Mr. H. Nevill, C. C. S., proposed Mr. Hume, B. C. S., (India,) as a corresponding member of the Society. This proposal was seconded by the Secretary, and Mr. Hume was duly elected.

A vote of thanks to the Chairman was proposed by Mr. J. de Alwis, and seconded by Mr. Capper, and the meeting then terminated.

Rules and Regulations of the Society.

[*Memo.*—The Asiatic Society of Ceylon was instituted 7th February, 1845; and by the unanimous vote of a Special General Meeting of the Royal Asiatic Society, held on the 7th February, 1846, it was declared a Branch of that Society, under the designation of the Ceylon Branch of the Royal Asiatic Society.]

1. The design of the Society is to institute and promote inquiries into the History, Religion, Literature, Arts and Social Condition of the present and former inhabitants of this Island, with its Geology and Mineralogy, its Climate and Meteorology, its Botany and Zoology.

2. The Society shall consist of resident or ordinary, honorary, and corresponding Members; all elected by ballot, at some General Meeting of the Society.

3. Members residing in any part of Ceylon are considered resident.

4. Persons who contribute to the objects of the Society in an eminent and distinguished manner, are eligible as Honorary Members.

5. Persons residing at a distance from Colombo may, upon special grounds, and with the recommendation of the Committee, be elected Corresponding members.

6. Honorary and Corresponding members shall not be subject to any fee on entrance, or any annual contribution, and are to be admitted to the meetings of the Society, and to the privilege of the Library, but are not to vote at meetings, or be elected to any of its offices, or take any part in its private business.

7. All Military Medical Officers resident, or who may reside

in Ceylon, are Honorary Members of the Society without entrance fee or subscription.

8. Every ordinary Member of the Society shall pay, on admission, an entrance fee of half a guinea, and an annual subscription of one guinea. Annual subscriptions shall be considered due on the 1st of January of each year. Members who fail to pay their subscriptions by the end of the year (provided they have been called for), shall be considered to have relinquished their connection with the Society.

9. The privilege of a Life Membership may be ensured by the payment of £10 10*s*., with entrance fee, on admission; £8 8*s*. after two years; and £7 7*s*., after four or more years' subscriptions.

10. The Office-bearers of the Society shall be, a President, two Vice-Presidents, Treasurer, and Secretary, with a Librarian, Curator of the Museum, and Conservator of the Meteorological and other scientific instruments of the Society,—all appointed from time to time by open vote at some General Meeting of the Society; and their functions shall be as follows:—

[1.] The President, and, in his absence, one of the Vice-Presidents, shall take the Chair at all meetings of the Society and of the Committee, maintain order, collect the votes, and cause the laws of the Society to be observed and enforced.

[2.] The Treasurer shall receive, collect, and pay out all monies on behalf of the Society, keep an account thereof, with the vouchers, and submit a statement of the pecuniary affairs of the Society to the Anniversary Meeting, and at other times as may be required.

[3.] The Secretary shall arrange, give notice of, and attend, all meetings of the Society and of the Committee, and record their proceedings; he shall also edit the Journal, and

exercise a general superintendence under the authority of the Committee.

[4.] The Librarian, Curator of the Museum, and Conservator of the Scientific Instruments belonging to the Society, will take charge of the books and other articles committed to them respectively, keep a correct list thereof, and generally conform in their management of the Rules of the Society in that behalf, or in the absence of such, to the directions of the Committee; having respect at all times to the safety and proper condition of the articles, and to the interests of the Society in their increase and improvement. The Curator of the Museum, in particular, taking care to superintend the reception of all articles in that Department transmitted to the Society, and have the same speedily submitted to examination and reported on, and suitably arranged.

11. The affairs of the Society shall be managed by a Committee of nine Members, (with power to add to their number), in addition to Office-bearers, elected in like manner; but subject always to the Rules and Regulations passed at General Meetings; three to be a quorum.

12. Members desirous of proposing persons for admission to the Society shall give notice of the same to the Secretary, in writing, at least a fortnight before the assembly of a General Meeting. Admission to membership of the Society shall be by ballot at any General Meeting. No candidate to be considered as elected, unless he has in his favour two-thirds of the votes taken.

13. A General Meeting of the Society shall be held Quarterly, namely, on the 7th day of February or first lawful day thereafter, and in the first week of the months of May, August and November, and at such other times as may be determined by the Committee: due notice of the meeting, and of any intended motion which does

not come through the Committee, except the nomination of new members, being always first given by the Secretary.

14. All papers and communications to the Society shall be forwarded to the Secretary at least a fortnight before the assembly of the General Meeting at which they are to be submitted; when they shall be read by the author, or, in his absence, by the Secretary, or some member of the Society.

15. All papers and other communications to the Society read or submitted at any General Meeting shall be open to free discussion; and such papers shall be printed in the transactions of the Society as shall have been approved of by the Committee on Papers.

16. The course of business at General Meetings shall be as follows:—

[1.] The Minutes of the last Meeting shall be read by the Secretary, and signed by the Chairman.

[2.] Reports of Committees shall be read, and communications made of all articles received, and donations to the Society.

[3.] Any specific or particular business submitted by the Committee, or appointed or open for consideration, shall be proceeded with.

[4.] Candidates or new members shall then be proposed, ballotted for, and admitted or otherwise, as the case may be.

[5.] Papers and communications for the Society shall then be read.

17. Special Committees may be formed for the prosecution of any specific object or matter of research; but these must be named at a General Meeting; and they will act as much as may be in co-operation with the Secretary of the Society, who will also be a constituent Member of all such Committees.

18. Every member of the Society has the privilege of introducing, either personally or by a card, one or two visitors to the General Meetings.

19. One copy of each Journal shall be sent by the Secretary to every member who has paid his subscription for the current year, and to every honorary member resident in Ceylon, and every such member may procure a second copy, on application to the Secretary. Members requiring more than two copies of the Journal can be supplied with them at half the price charged to the Public.

20. Evening Meetings shall be held once a month, or at other times as may be arranged, for discussion on papers read, or to be read at General Meetings, (such papers however not necessarily being before the Meeting,) the mutual improvement of the Members, and the promotion of the objects and advancement of the interest of the Society.

21. Members who have been absent from Ceylon, on their return to the Island, have the privilege of rejoining the Society within 12 months of their arrival, on payment of the Subscription for the current year.

22. It shall be competent for any General Meeting to suspend temporarily any of the above Rules.

RULES FOR THE LIBRARY.

1. All Books borrowed from the Library shall be duly entered in the Receipt Book, with the date of giving out, and the date of the return, which latter shall be initialled by the Librarian.

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4. Dictionaries, and works of reference, or of especial rarity or value, do not got out: they remain in the Library for use or inspection; and Periodicals lie on the table for one week.

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8. ශ්‍රීවිජය ඒ ත්‍රුවික්‍රම ලංකේ
10. ලවණේශ්වරා මිත ශූ භුදු
12. දෙවිනුවංවෙනිතාරිය ශීල
14. කෙතී පංචාධාර තැළුරු
16. හාණවත්‍ර ඒකෙ ප්‍රකෙගේ
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24. වංලෙඩුවඩුලබාරාදුරුගේ
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DONDRA INSCRIPTION.—No. I.

JOURNAL

OF THE

CEYLON BRANCH

OF THE

ROYAL ASIATIC SOCIETY.

1871—72.

EDITED BY

THE HONORARY SECRETARY.

"The design of the Society is to institute and promote enquiries into the History, Religion, Literature, Arts and Social condition of the present and former inhabitants of this Island, with its Geology, Mineralogy, its Climate and Meteorology, its Botany and Zoology."—RULES.

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COLOMBO:
PRINTED AT THE "CEYLON TIMES" OFFICE.

1873.

Errata.

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The following misprints and omissions occur in the Journal and Proceedings.

Page 45 line 12 "Zeylonica" for "Zeylanicæ"
,, 45 ,, 13 "Appendicies" ,, appendices
,, 45 ,, 16 on ,, "of"
,, 46 ,, 2 "Stoliczkas" ,, "Stoliczka"
,, 46 ,, 8 "Stoliczkas" ,, "Stoliczka's"
,, 52 ,. 12 "fostnii" ,, "fostenii"
,, 52 ,, 21 "tripudiads" ,, "tripudians"
,, 52 ,, 22 "eœruleus" ,, "ccœruleus"
,, 54 ,, 6 ounatum ,, "ornatum"
IX ,, 17 General ,, Committee
Page 46 below line 24 add "Nycteridium Schneideri," Shaw.
,, 51 ,, ,, 25 ,, "Torpidonotus Ceylanensis," Gthr.
,, 54 ,, ,, 1 ,, "Rana gracilis," Weigm.
,, XIV ,, ,, 6 ,, 121 Birds, viz.

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EXTRACTS FROM A MEMOIR LEFT BY THE DUTCH GOVERNOR THOMAS VAN RHEE TO HIS SUCCESSOR GOVERNOR GERRIT DE HEER, 1697.

Translated from the Dutch record preserved in the Colonial Secretariat at Colombo, by RICHARD A. VAN CUYLENBERG, *Government Record Keeper.*

Since it has pleased the hon'ble Indian Government of Batavia to select you as my successor in the Government of Ceylon, and to direct that I should draw up a Memoir or instructions for your information, and deliver the same to you before my departure hence, it would naturally be expected that in the carrying out of this work I should first of all begin with a lengthy description of the manner in which the hon'ble Company has acquired its possessions in Ceylon, as well as an account of the situation, extent, and limits of every place belonging to this Government, and then dwell upon such other matters as are generally deemed worthy of being placed on record. But considering that these things may be sufficiently well ascertained from divers papers now lying in the Chief Secretary's Office, and as my continued indisposition would not permit me to give a detailed account of everything, I shall only touch upon a few heads. I shall first point out to you how many castles, forts, fortresses and fastnesses, the hon'ble Company has now possession of under this Government. They are the following: the Castle and Town of Colombo, the Capital of the Government and the place of residence of the Governor.

This district (Colombo) comprehends

(1) The Fortress of Calpetty, 21 (Dutch) miles to the north of Colombo. The Chief of this place is the Junior Merchant Lambert Van Buren.

(2) The Fortress of Negombo, 5 (Dutch) miles to the north of Colombo. Captain Lieutenant Bitter Van Rade is appoin ed Chief of this place, without however, having any command over the inhabitants of the Hapitigam and Alutcoor Corles, inasmuch as these provinces are placed under the Dissawe of the district of Colombo.

(3) The Fort of Caltura, 8 (Dutch) miles to the south of Colombo, on the banks of the Caltura river, not far from the sea-shore; Lieutenant Tobias Van Amstel has the command of this place, as well as of the Pasdun Corle and a portion of the Walalawitte Corle.

(4) The "pugger" Anguratotte, lying inland in the Rygam Corle, about five hours walk from Caltura, garrisoned with a "misties" Serjeant and "Toepasse" Soldiers.

(5) The Fort of Hangwelle in the Hewagam Corle. The Chief of this place is a "mistics" Captain, Gregonius de Cota, but he has no authority to meddle with the servants of the land.

(6) The Fort of Malvane in the Hina Corle, about four hours walk eastward from Colombo.

Next to Colombo, follows in order, the Castle of Jaffnapatnam, under which is comprehended the island of Manaar. The Chief of Jaffnapatnam is the Junior Merchant William Ridder. It also comprehends the following fastnesses; fort Hammenbiel, Pass Pyl, Pass Beschutte, and Pass Elephant which are also under the command of an Ensign, and fort Pounceryn lying on the borders of the

Wanny under the command of a "Toepas" Serjeant. The fort of Arippo is also comprehended under Manaar, and is garrisoned with a "Toepas" Corporal, an "Aradsche" and 24 Lascoreens.

The fortified town of Galle, comprehends the fortress of Matura. The Senior Merchant Abraham Schepmoes, in the capacity of Dissawe, manages the Government of this place. Galle also comprehends the following "puggers," Mapulgam, Bentotte and Pittigalle of which each of the first two has a Serjeant at its head, and the last is only garrisoned with Lascoreens.

Under Matura are comprehended the fort of Caltoene, where an Ensign is placed as head of it—the "puggers" Hackman and Accuras each having a Serjeant at its head—the "pugger" Maracade garrisoned with "Toepas" soldiers and lying in the middle of the Gerewye, where yearly a large quantity of paddy is sown and a great number of elephants captured on account of the Company; the watch-place at Gandura or the Galjettes garrisoned, with a Corporal and Sixty sentinels, serving principally for the protection of the Arrack warehouse standing there.

The "Logie" of Tutucoryn on the coast of Madura.

The fortresses of Trincomalie and Batticaloa on the eastern side of the Island. The merchant Nicholas Van Henvel has been appointed Chief of these fortresses, and resides at Trincomalie. The Book-keeper Isaac Van Heek, being placed at the head of Batticaloa under his authority. Having thus briefly touched upon the names of the forts, towns and fortresses belonging to the hon'ble Company, it would not be out of place were we to state how many provinces and districts are comprehended in the places already mentioned, and by whom they are governed.

Colombo comprehends the Hewegam, Hina, Salpitti, Ravgam, Pasdun, part of Walaeawitte, Hapitigam and Alutcoor Corles. A native with the title of Korale is placed over each of these eight Corles, which are all governed by the Senior Merchant Pieter Pietersz, in his capacity as Dissawe, subject to the authority of the Governor. The Dissawe has also authority over all the out-stations of the Colombo district, the deputies of which are required and bound to report all occurrences to the Dissawe who, in his turn, gives information thereof to the Governor.

Jaffnapatnam has under it four provinces, viz., Waddemoraetsche, containing 3 native churches and schools, Timmoraetsche 5. Patchelepalle 4. Welligamme 14, making in all 26 Churches and Schools. The province of Wanny is also included under the kingdom of Jaffnapatnam. Its inhabitants called Wannias are governed by chiefs of their own nation. Along the borders of Wanny, from Jaffnapatnam down to Manaar, three Churches and Schools have been established, 1 at Ponneryn, 1 at Polleveremkattoe and 1 at Illipekarewe.

The inhabited islands, 8 in number, are reckoned as a fifth province of Jaffnapatnam. Their names are as follows:—

Carredive	now	also	called	Amsterdam
Pangeredive	,,	,,	,,	Middleburg
Annelle	,,	,,	,,	Rotterdam
Neynadive	,,	,,	,,	Haarlem
Tannidive	,,	,,	,,	Leyden
Perrendive or Illadvaka			,,	Delft

The two others being two little islands which lie one near the other—called by us Hooven and Enkhuysen.

In these eight islands there are 8 Churches and Schools.

Under the island of Manaar there are 11 Churches and

Schools. In the island itself the following,—one in the town and one in each of the villages. Tatuwalle, Lugaar, Point Pedro, Carsel, Pesale, and Tallemanaar, and one in each of the provinces belonging to the island, viz., Mantotte, Nanalan, Arippo and Peringale. The province of Moeselypattoe is also included under the district of Manaar.

The fort of Galle comprehends the Galle Corle and that portion of the Walalawitty Corle which lies on the other (south) side of the Alicam river, as the portion lying on this side of it is comprehended under the district of Colombo. Ensign Abraham Emans is placed over Galle and the portion of the Walalawitty Corle belonging to it, and supervises the province under the higher authority of the Commander of Galle. The portion of the Walalawitty Corle belonging to Galle begins on the south side of the Alicam river, and stretches from thence along the river, inland as far as the villages Horrangelle and Indrappat Ella, and from Bentotte along the sea-coast as far as the beach Naya-endugalle, or rather the village called Balapittia. From this place the Galle Corle begins, and is divided into three pattoos, viz., Wellebaddepattu, Gangeboddepattu, and Talpepattu.

Wellebaddepattu begins from Balapitty, and runs along the strand as far as the Gindura river, and inland as far as the rock called Candarale-Elloecande.

The Gangeboddepattu begins from the Gindura river and stretches as far as the town of Galle, running inland to the village Hinnedunne or Dollemawitte Wakele Dinni-amblam.

The Talpepattu begins from the right hand side of the town of Galle and extends along the sea-coasts as far as Gooyapane, the limit of the Belligam Corle, as well as inland to the country.

The Dissaweship of Matura comprehends three Corles or provinces, viz., Dolosdas Corle, Morruwa Corle and Belligam Corle, which are governed by the Dissawe of Matura, Mr. Abraham Schemoes, under the higher authority of the Commander of Galle.

At Trincomalie and Batticaloa the hon'ble Company have no other fortresses except the forts themselves, and no provinces are comprehended therein, inasmuch as they have all been evacuated for the King of Candia and given over to His Majesty.

The several sources of revenue and advantages derived by the hon'ble Company under their Government are: The peeling of Cinnamon, the capture of Elephants, the Arrack, Cloth and Salt Trade; the tolls and rights of the Company's domains which are yearly rented out, Agriculture, the Chank and Pearl fisheries.

In Jaffnapatam the hon'ble Company has clearly derived a profit of Rds. 1219-2-9 by the conclusion of the negotiation of August last, principally arising from the export of elephants, the renting out of the Company's rights and domains, the recovery of poll-tax, the rents of lands, and (though of little or no importance) the sale of a few articles of merchandise.

The capture and sale of elephants have contributed very much to increase the revenue of this place. A large number of merchants from Coromandel yearly visit Jaffnapatam in order to negotiate for the purchase of these animals with the hon'ble Company. This, therefore, is a work which must be carried on with great assiduity, and for this purpose huntsmen must continually be employed. The Wannias are bound to bring forty-two of these animals yearly, and deliver them as a tribute to the hon'ble Company. But

for some time this practice has been interrupted, and the reason assigned by them was that the inhabitants endeavoured to oppose them in everything, so that whenever they enclosed a herd of elephants, people kept out of the way or refused to render them any assistance which might help them in capturing the animals. Of this they personally complained to us here in the month of April last, and their statements have been found, by the express Commissioners sent by us thither, to be correct. We are of opinion that the more these men are pleased and the more help is rendered them, the more prompt they would be in the fulfillment of their duties, and not resting content with having paid their tribute, they would deliver to the Company a greater number of elephants than they were required to, inasmuch as for every beast delivered over and above the number of their tribute, an allowance is usually made to them of a sum varying from Rds. 25 to Rds. 50, according to the size and quality of the animal ; and a Wannia, by name Don Philip Welleemapane, in accordance with the decree of the Supreme Government at Batavia, has been licensed to get an elephant seized for himself after the fulfillment of his tribute, and to sell it to the merchants at Coromandel. It is therefore to be expected that the Wannias will not fail to apply themselves with diligence to the work of capturing a large number of elephants, inasmuch as their own interest lies therein. This we gave them to understand, upon which they made many promises never to fail in the fulfillment of their duties, the effects of which have already appeared to us, for after their return to Jaffnapatam they applied themselves with great diligence to their work, and the result was that they delivered a large number of elephants to the Company.

The Wannias must in general be treated with every mark of friendship and kindness, and experience has sufficiently taught us that the more severely they are dealt with, the less could be obtained from them, and, on the contrary, the more kindly they are treated the greater willingness and contentment they have shewn. They are very sensible of affronts, and a people that can do as much good as well as much harm, standing as they do, with one leg on the Company's ground and with the other on the King's territory, and being able to lay open the whole of Jaffnapatam to the Cinghalese, unknown to us. On this account, the Wanny has now been considered the key of Jaffnapatam. Having thus briefly treated upon what we considered necessary to be said regarding the Wannias, we shall now touch upon what remains to be recorded concerning Jaffnapatnam itself and the inhabitants of that kingdom. The inhabitants consist of forty different classes of people who are subject to perform certain services and to pay several petty taxes to Government, in addition to the payment of land rents and the tenth of their lands, trees, houses and gardens.

(1) The Bellales (Vellalar), the most numerous of all the classes; the Chiandas (Sandar), comprising but a very small number; the Tannekares (Tanakkarar); the Paradeezes (Paratesikal); the Madapallys (Madappali); are bound to work for the Government, twelve days in the year and to pay two fanams as poll-taxes, and one fanam as "adegariye." The Madapallys (Madappali) are also employed among the heathen to assist the Brahamins in the preparation of their meals.

The Malleales Agambadys (Malaiyala Akampadys) are bound to serve the Government twelve days in the year, and to pay two fanams as poll-tax.

The Fishers—consisting of six different classes, viz :—

Carreas (Karaiyar)	Moeheas (Mukkuvar)
Paruwas (Paravar)	Chimbalawes (Sampadavar)
Kaddeas (Kadaiyar)	and Tummulas (Tumilar)

are required to serve as sailors twelve days in the year on board the vessels belonging to the Government, except those living in the villages of Kolombaturre and Araly (Kolumputurai and Arali), of whom the first perform their "oely" service in conveying the servants of the Company to and from Calmane (Kalmunai), and the latter to and from the islands, for which purpose they are obliged to use their own boats. They are also bound to pay two fanams each as poll-tax.

The Moors or Mahommedans pay two fanams each as poll-tax and eight fanams each as office money. They are also bound, whenever called upon, to assist in launching boats and hauling them on shore, and those that sit at the bazaar with their merchandise are required to come to the Castle and assist the Cashier in counting copper money.

The "Chéteys" pay two fanams each as poll-tax, and those who are heathens, four fanams. They are also required like the Moors, to come to the assistance of the Cashier in counting copper money, when trading at the bazaars.

The Silvermiths pay two fanams each as poll-tax and three and a half fanams as office money.

The Washers pay two fanams each as poll-tax and four fanams as office money. They are also required to deck houses with white linen for the principal qualified Servants of the Company during their tours in the country.

The Weavers pay two fanams each as poll-tax and five nine-twentyth fanams as office money.

The Parreas pay two fanams each as poll-tax and four

fanam as office money and parform no other "cely" service than inviting by turns people on Sundays to the Church to which they belong by beat of tom-tom. But this is only understood of those who make this a profession.

The Christian carpenters and the Christian smiths pay two fanams each as poll-tax and two fanams as office money and are required to serve two days in the month, one day with and one day without wages. The heathen carpenters and the heathen smiths pay two fanams each as poll-tax and three fanams as office money. They are also bound to repair for wages, the vessels belonging to Government as well as these of private individuals, but these consists of a very limited number.

The dyers pay two fanams each as poll-tax and four fanams as office money and are bound to dye cloth for the company.

The oilmakers pay the same as the dyers and are bound to purchase oil for the company and to deliver it to the company at the cost price.

The Toerambas (Turumpar) are washers of the Nalawassen (Nalavar) and pay two fanams as poll-tax and nine and quarter "tummek" as office money.

The Chivias (Sitiyar) are required to bear palanquins for the Commander and Dissawe and to provide their houses and guards of the Castle with water, as well as to serve by turns in the places of residence of these Officers and also to pay two fanams each as poll-tax.

The Brass-founders pay two fanams each as poll-tax and are bound to make copper-works for the Company for payment.

The Masons are bound to work for payment whenever their services are required and to pay two fanams each as poll-tax.

The Tailors are not required to do any "oely" service, but are bound to deck with white linen the houses of high officials arriving at Jaffnapatam, and to pay two fanams each as poll-tax

The painters pay two fanams each as poll-tax and collectively eight and half Rds. as office money, consequently they are on the whole free from all services.

The Barbers are also free from service and only pay two fanams each as poll-tax.

The Palwelys perform no other "oely" service than launching and hauling on shore the vessels of the Company as well as white-washing the Church in the Castle and the houses of the Commander and Dissawe.

The Parruas are free from service with the exception of those who sit at the bazaar trading, who are obliged to come to the castle and assist the cashier in counting copper money. They have to pay two fanams each as pole-tax.

The Maruas have to serve the company as Lascoryns and to pay two fanams each as poll-tax.

The Pallas and Mallewas, slaves of the inhabitants are bound one day in the month each to feed the elephants with leaves and to carry the baggage of the qualified servants of the company whenever they happen to travel in the country on service as well as to pay two fanams each as poll-tax.

The Pallas and Malawas that inhabit Welligamme are bound to come to work in the powder mills from three to six days in the months and to provide grass for the Company's horses as well as to pay two fanams each as poll-tax.

The Kallikarre Pares are also slaves of the Company and are bound to pay and perform the same as the Pallas and Nallawas.

The Kottoecarre Pareas are also slaves of the Company and like the Pallas of Wehigamme are bound to work from three to six days in the month each, at the powder mills and to provide grass for the Company's horses as well as to pay a poll-tax of two fanams each.

The Chiandas Weulepeure are bound to carry the goods and the baggage of the Commander and Dissawe whenever they travel in the country and to pay a poll-tax of two fanams each.

The Wallias pay a poll-tax of two fanams each and are bound to hunt hares and deliver them to the Commander's kitchen.

The poll-tax, land rents, "Adegary" office money, &c., according to the statement made out on the 1st September last, amounts to sum of Rds. 31640¼.

Having thus shewn into how many castes the people of Jaffnapatam are divided and what each is bound to perform on behalf of the Company. I think it necessary to state that a bitter and irreconciliable hatred has always existed in Jaffnapatam between the castes of the Bellales (Vellelar) and Madapallys, so that these may not be elevated in rank and the offices of honor one above the other. For this reason the two writers of the Commander are taken from these two castes, so that one of them is a Bellale and the other a Madapally.

Those who are bound to work for the Company one day in the month but fail to do so are bound to perform two instead of one day's service on the following month or else to pay a sum of two fanams as a fine. These fines called "Chicos" money were at first enjoyed by the Seminary but now they are made good to the Company.

The capture and sale of elephants, the principal source

of the Honorable Company's revenue in the division of Jaffnapatam, must be continued to be carried on with the greatest assiduity and earnestness at all seasons, and I may remark that this branch of the company's income is most deserving of your attention and care.

For the purpose of affording every possible encouragement to the persons following the occupation of elephant catchers in this part of the Island, it has been arranged and sanctioned that they shall receive the following rates of remuneration for their services in bringing in and delivering to the proper authorities, each Elephant they may so capture and make over and above the stipulated number of animals which they are held bound to deliver in payment of their tribute to the Honorable Company,

This table of rates payable for Elephants has been arranged and drawn up by the Company's Commissary Hendrick Adrian Van Riede.

For Elephants with Tusks

To be paid for an Elephant six cubits high and upwards, a gold bracelet of seven pagodas and forty-six dollars in ready money.

To be paid for an Elephant from five to six cubits high, a gold bracelet of six pagodas, and eighty-six dollars in money.

To be paid for an Elephant from four to five cubits high, a gold bracelet of four pagodas, and twenty-six dollars in ready money.

To be paid for an Elephant from three to four cubits high, a silver bracelet of two-rix dollars and twelve-rix dollars in money.

To be paid for an Elephant of less height than the above ten-rix dollars in cash.

This privilege which was extended alike to all the hunters, has been disputed by the chief hunter, Don Gaspaar Nirhearhenederaijen Modeliar, who maintains that it is his sole privilege. This will be more particularly set forth in a certain representation addressed to us by the Commander Floris Blom Zalyer on the 20th August 1892, from which various other points of weigbt and interest will arise for your consideration. I simply annex a copy ot this representation for your perusal, inasmuch as my continued indisposition during my administration has prevented me from making a general round, and acquainting myself more throughly with this and other subjects of which therefore, I am unable to speak."

RECAPITULATION OF THE FORTS, FORTRESSES AND ISLANDS UNDER THE RULE AND GOVERNMENT OF THE HONORABLE COMPANY, AS FOLLOWS :—

The Fortress of Calpitty, twenty-one Dutch miles north of Colombo.
,, Fortress of Negombo, five Dutch miles south of Colombo.
,, Fort of Caltura, eight Dutch miles south of Colombo.
,, Fort of Anguoalotta, inland from Caltura.
,, Fort of Hangwella in the Hewagam Corle.
,, Fort of Malwana four hours walk east of Colombo.
,, Castle of Jaffnapatam and Island of
,, Mannar with other forts.
,, Fort of Arripo.

The Fortified town of Galle, and the fortress of Matura.
,, Logie of Tutucoryn.
,, fortress of Trincumalie on the east coast.
,, fortress of Batticaloa on the east coast.
,, Island of Carredive now also called Amsterdam.
,, Pangeredive ,, ,, ,, Middleburg.
,, Annelle ,, ,, ,, Rotterdam.
,, Neynadive ,, ,, ,, Haarlem.
,, Tannidive ,, ,, ,, Leyden.
,, Perrendive or Illadvaka called Delft.
also Hooren and Eukheuysen.

LIST OF CASTES WITH THE TAX AND SERVICE DUE BY THEM TO THE HONORABLE COMPANY.

The Belalles pay 3 fanams, and work 12 days in the year.
,, Malleales Agambadyes pay 2 fanams, and work 12 days.
,, Fishers pay 2 fanams, and work 12 days.
,, Moors pay 10 fanams, and assist in hauling up boats and counting copper money.
,, Chéteys pay 6 fanams, and help to count coin.
,, Silversmiths pay 5½ fanams, and decorate houses
,, Washers pay 6 fanams and decorate houses.
,, Weavers pay 7½ fanams.
,, Parreas pay 6 fanams.
,, Christian Carpenters and Smiths pay 4 fanams.
,, Heathen Carpenters and Smiths pay 5 fanams.
,, Dyers pay 6 fanams and Dye cloth.
,, Oilmakers pay 6 fanams,

The Chiwiahs pay 2 fanams and carry palanquins.
„ Brassfounders pay 2 fanams and work in copper
„ Masons pay 2 fanams each.
„ Tailors pay 2 fanams and decorate houses.
„ Painters and Barbers pay 2 fanams.
„ Maruas pay 2 fanams and serve as Lascoryns.
„ Pallas, Mallawas and Kallibarree Pores are all slaves, and pay 2 fanams each.
„ Cheandas pay 2 fanams and carry the Company baggage.
„ Walleas pay 2 fanams and hunt hares for the Company.

THE FOOD STATISTICS OF CEYLON,

By John Capper.

THE subject of food supply is of so much importance to the well-being of a country, that it would be difficult to name any other material question, involving such large considerations. Not only are insufficient supply of food and physical degeneration inseparable, but where nourishment for the people is defective, we must not look for flourishing trade. In Ceylon, owing to local circumstances, the failure of a harvest means something more than dear food: it signifies want, too often bordering on starvation, for the simple acknowledged fact, that in nine cases out of ten, the paddy cultivator has no other occupation: he earns no wages with which to purchase food in bad seasons: if a drought comes, and his crop fails, he has rarely any other resource for food than in a few garden roots, or in wild fruit, roots, &c., and except in the case of some villagers in the Coffee districts of the interior, they possess no means of barter by which food may be obtained, unless it be in the few cattle on which they depend for the future cultivation of their fields. As a last resource they have their lands, and I have been made aware of numerous instances in which first the cattle, and then the fields, were disposed of to ward off starvation.* In considering the question of Food supply in

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* It is recorded in replies to the questions of the Irrigation Committee, at page 10 of their Report, that in some Districts of the North-Western Province, "Rice is considered more as luxury than as an article of food," and the then Acting Agent did not hesitate to assert that he has traced the decrease of population to the want of proper nourishment, whilst there have been instances of entire families suffering from disease, induced or aggravated by the two frequent use of fine grain in substitution for rice. The Agent of the Province in his Report

Ceylon, it is necessary to bear this peculiarity in mind, that, with the exception of the large cultivators in the Batticaloa district, near the great irrigation works, and in a few district of the Southern and Western Provinces, grain is not grown for sale, the cultivator and the consumer being one. This, I will illustrate presently, by figures shewing how stationery are the imports of Rice into the Island, seasons of plenty and years of famine making no essential difference in the demand for foreign-grown grain. It will be as well to bear this fact in mind, because there is a wide-spread belief abroad in this Island that very shortly, as Irrigation Works are constructed or repaired, and grain cultivation is extended, we shall cease to be importers of Rice, and thus be able to retain in the country the large sums which are annually sent out of it in payment for the imported grain. No doubt this will be the ultimate result of extended irrigation and rice cultivation, but it is a realisation more distant than appears to be believed. The reason of this is that imported rice goes to supply the non-cultivating classes: the chief want of irrigation is felt by producers on their own account and for their own consumption; it will occupy years to supply the wants of all these, assuredly this is the proper direction for irrigation outlay. It will be only by means of large proprietors undertaking rice cultivation for sale in the vicinity of Rugam, Tissa Maha Rama and other extensive tanks, that any im-

for 1864, stated that during six months of the year 1860-61, the register of deaths from disease engendered by the want of food, amounted to 8,000, which was believed to be below the number.

In the same Report, we read at pages 18 and 19, that in the Northern portion of the Matara District, there is frequently great distress and suffering amongst the people, causing a mortality equal to one-tenth of the population. This decimation of the inhabitants the then Assistant Agent ascribed entirely to the want of sufficient nourishing food, a statement that is quite borne out by the official paddy returns.

pression will be made on our imports of grain from beyond sea.

In illustration of what I have stated in regard to the food of the people, I place below returns complied from the Blue Books of ten years, commencing with 1860 and ending with 1869 :—

Year.	Fine Grain.	Paddy.	Total of cultivated Grain.	Rice Imported.
	Bushels.	*Bushels.*	*Bushels.*	*Bushels.*
1860	124,791½	8,409,534	8,534,325½	3,182,204¼
1861	82,941½	7,262,673	7,345,614½	4,181,096¼
1862	741,265	8,774,787	9,516,052	4,218,601
1863	579,251	8,787,204	9,366,455	4,244,031¼
1864	2,718,162½	6,943,420	9,661,582½	3,943,395¾
1865	689,718	8,092,993	8,782,711	4,851,413¾
1866	733,193	8,335,593	9,068,786	3,777,320¾
1867	914,144	6,522,345	7,436,489	4,543,327
1868	910,576	7,099,192	8,009,768	4,455,314¾
1869	828,803	5,612,839½	6,441,642½	4,406,215¾
Average per annum.	832,284½	7,584,058	—	4,180,292

It may be seen by reference to this table, that the annual imports of Rice have amounted, with but little variation, to about four millions of bushels : it will be observed also that so far from shewing any increase, the production of Paddy in the Island has actually declined, the yield during the last seven years having never reached that of the year 1862 ; on the contrary, the average production for the last three years has been not more than 6,411,455, as against

8,774,787 bushels in the former year, shewing a decrease of 2,363,332 bushels, with at the same time an increasing population : during this period of three years, although the production of Rice was six millions, seven millions, and five millions of bushels, respectively, the imports of Rice were not sensibly affected—ranging only between four millions five hundred thousand bushels, and four millions four hundred thousand bushels, a difference of only 3 per cent. In one of the worst years for paddy cultivation, viz. 1864, when the yield was only 6,943,420, the imports of Rice were but 3,900,000 bushels, whilst the effect in the cultivation of dry grains was very marked, for, in that year, the extraordinary quantity of 2,718,162 bushels were produced, against five hundred thousand the year previously, and six hundred thousand in the following year.

The next table shews the yearly productions of paddy, reduced to the quantities they represent when cleaned as rice ready for cooking, viz., one half, together with the corresponding yearly imports of rice :—

Yearly Production of Rice.		Imports of Rice.	Total.
	Bushels.	*Bushels.*	*Bushels,*
1860	4,204,762	3,182,204¼	7,386,966¼
1861	3,631,336½	4,181,096¼	7,812,432¾
1862	4,387,393½	4,218,601	8,605.994½
1863	4,393,602	4,244,031¼	8,637,633¼
1864	3,471,710	3,943,395¾	7,415,105¾
1865	4,046,496½	4,851,413¾	8,897,910¼
1866	4,167,796½	3,777,320½	7,945,117
1867	3,261,172½	4,543,327	7,804,499½
1868	3,549,596	4,455,314¾	8,004,910¾
1869	2,806,419¾	4,406,215¾	7,212,635½

The above returns shew a yearly average of 7,972,320½ bushels. I believe I shall not be far wrong in assuming, that the imported rice, with trifling exceptions, is consumed not by the rural population, but by non-cultivators, viz., estate coolies dwelling in the towns, and along the settled lines of roads, chiefly Tamils and Moors, and by Sinhalese traders, and artizans in the maritime provinces. Assuming these to amount together to 600,000, making allowance for the small proportion of children amongst estate coolies, and allowing an average consumption of six bushels per annum for each individual, we have a quantity of 3,600,000 bushels of imported rice, leaving 580,000 bushels to be distributed amongst those native cultivators who are able to procure it when needed, by barter for tobacco and coffee, we have this quantity to add to the yearly average of island grown rice, viz , 3,792,000 bushels, in all 4,372,000 for the consumption of the remaining two millions of the population, which gives an average of two bushels and two seers per annum for each individual.

This represents the probable yearly consumption of rice, amongst the great bulk of the rural population of the island. There is in addition to this the various descriptions of fine grain produced, the chief of which is Korrakan. Differences of opinion exist as to the wholesomeness of this grain when eaten alone, as it is in certain districts subjected to severe and and frequent drought, but it is quite certain that wherever this is the case the people are emaciated and out of condition, especially the children.*

* It is very seldom that Korrakan is grown in localities where there is abundance of water for rice cultivation, and unless in very small patches: villagers driven from the vicinity of tanks by the absence of water usually repair to the nearest hills, on the slopes of which they grow small plots of fine grain.

A statement of the grain production of the several provinces in 1869, shews that in the North-Western Province the smallest yield of Paddy is accompanied by the largest production of Fine Grain, entirely the result of insufficient rain and the almost total absence of irrigation works in that part of the Island.

	Paddy.	Fine Grain.
1869.	Bushels.	Bushels.
Western Province	1,510,279	175,825
North-Western do.	435,202	263,827
Southern do.	473,361	95,915
Eastern do.	1,179,614½	16,092
Northern do.	523,004	152,678
Central do.	1,491,370	128,962

The yearly average of the grains 832,284 bushels distributed amongst the 2,600,000 of dwellers in outlying districts, gives about ⅝ of a bushel per annum for each person, which is equal in amount of nutriment to the 5½ oz. of Pulse given daily to prisoners in Indian Jails in addition to the ration of 20 oz. of Rice.

I have endeavoured to shew that of the population of Ceylon 600,000 may be taken to consume a sufficiency of food. It may be desirable to ascertain what quantity of rice the remaining portion of the people could consume if it were placed within their reach by means of irrigation works and the consequent extension of cultivat on. It is believed that the Census returns will shew the composition of householders to be equal to an average of four and a half persons in each family. Assuming that in each of these 444,444 groups there are 3½ women, children and old men and one able bodied adult, and allowing the latter a consumption of two-thirds

bushel a month, or eight bushels per annum, and the former one-third of a bushel monthly, or four bushels each yearly, their aggregate consumption would amount to 9,777,000 bushels, their present consumption being only 4,372,000 bushels.

It may be urged in regard to these latter figures that we cannot place too much reliance on the occuracy of the Blue Book returns. I have not overlooked this, but I set-off against any understatements in these, the fact that a considerable quantity of the Paddy grown in the Island is never converted into rice, but consumed in feeding stock of various kinds, we must also make an allowance for one-tenth of the total crops for paddy retained for seed. These will probably meet any understatements of produce in the Blue Book returns.

We may infer from the figures quoted above that there is ample room for irrigation works for many years to come, that in short three times the present yield of paddy must be produced in the country before the people can be said to be sufficiently supplied with food, and this, without in any way interfering with the importation of Indian grown rice.

There need be little apprehension as to the capabilities of the island for the production of this increased quantity with sufficient water-supply. When Polanarua was the abode of the Native sovereigns, and when the great tanks now in ruins, were centres of vast regions of cultivation, the population of the island could not by most moderate calculation have been less than six millions, probably much more, and as there is no reason for doubting that in those days every homestead possessed a well-filled granary* we may reason

* In reply to a question put to old Kandyan Arachy by the writer, whilst engaged on the Cattle Disease Commission, the former

ably believe that the annual production of rice was then not less than thirty-five millions of paddy—ten times the extent of our present cultivation.

It should not be forgotten, however, that one good result of a better supply of water for irrigation than is now generally obtainable, would be a larger yield per cultivated acre than is possible under existing circumstances. With ample irrigation many tracts of paddy lands now yielding from three to five-fold would, no doubt, produce ten or twelve-fold and thus, even without extending the area of cultivation, the increased yield of paddy in Ceylon would be considerable.

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said that he preferred the rule of the Kandyan sovereigns, to that of the British Government, for that, whatever their tyranny may have been they took care that the people were always well supplied with food.

SPECIMENS OF SINHALESE PROVERBS,

By L. DE ZOYSA, Mudliyar, *Chief Translator to Government.*

(*Continued from page* 148, *Journal* 1870–71.)

The interest which was taken in the collection of Sinhalese Proverbs collected by me and read before this Society last year, has induced me to continue my researches in the same direction, and I accordingly produce the following Proverbs in continuation of my former paper.

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101. මහ මුදට දෙහි ඇඹිල් මිරිකුවා වාගේ.

101. Like squeezing lime juice into the sea.

(Attempting to accomplish a great object with means ridiculously disproportioned to attain the end proposed).

102. එරිවිව මිනිහාගේ කර නැගුනා වාගේ.

102. Like getting on the shoulders of a man sinking in mud.

103. කිරෙන් සේදුවත් දැලි අඟුර සුදුකාරන්ට බෑ.

103. Charcoal cannot be made white, even if you wash it with milk.

104. අදින්ට නැතිමිනිහා බල්ලන්ට හැට්ටමැහුවා වාගේ

104. Like a man who has no clothing of his own, busying himself in making jackets for dogs.

105. අතැල්ලේ අත්තත් නෑ හිටිය අත්තත්නෑ.

105. Lost the branch he held, and lost the branch he stood on.

106. බල්ලන්ට මොටද ලෙලිපොල්.

106. What is the use of cocoanuts with husks, for dogs?

107. බල්ලෝ බිරුවාටඅහසට ඇහේද.

107. Will the barking of dogs reach the sky?

108 බැරිදේපුළුවන්ද දත් මිටිකාවාට.

108. Will impossibilities be possible, although one grinds his teeth?

109. වැද්දාට ඕනෑනම් ගොරයා දඬමස්කරන්ට පුළු වන්ඒ.

109. It is said that if a Veḍḍá wishes, he can convert *goraka** into venison.

(A clever man will find means to accomplish his object, however difficult or impossible it may appear to others).

110. ගෙරිමස් කනත් කා රේ එල්ලාගණ්ණ කන්නේඇයි.

110. Although you eat beef, why should you eat it hanging it round your neck?

(Although one might desire to indulge in unlawful or sinful enjoyments, there is no necessity that he should do so in an open and scandalous manner).

111. කිඹුලාට මොනා හෙම් පිරිස්සාද.

111. Can the alligator catch cold?

112. කාවිරු ගිනි මෙලෙවූ වේ මොකද අපේ බත පැහිච්චනම්.

112. What does it signify who kindles the fire, if our rice is cooked?

113. කහලගොඩේ තිබූ නත් මැණිකා මැණිකමයි.

113. A gem is a gem, although found in a dunghill.

114. එපිට තියෙන මොනරමහට ලඟ තියෙන කපුටු මහ හොඳළු.

114. It is said that crows' flesh within one's reach, is better than peacock's flesh found at a distance.

115. ඒදංඩ මැදදී අත්වැල කැඩුනාවාගේ.

115. As if the railing broke down in the middle of the *ędanḍa*.†

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* The fruit of the goraka tree, the mangostina, *(garcinia gambogia)*.

† A log of wood placed across a stream or canal to serve as a bridge.

116. ගම්රාලට කුරහන් ඇතුවා දතෙන්පෙනෙයි.

116. The teeth shew that the Gamarâla* is possessed of kurakkan.†

117. එපිට තියෙන ඉනංගු ගෙට වඩාහොඳයි ලහතියෙන පඳුර.

117. A bush near you is better than a fine building at a distance.

118. එකරටකා කථාකරන්ට බැරුවාට වෙන රටකට ගිය කොට ඒ රටේ ඉඟිකාරන්ටත් බැරිවී.

118. A man who left his country, because he was not permitted to speak, found that in the country where he has arrived, he was not allowed even to make a sign!

119. දුවට අහුවෙච්ච නරියා වාගේ.

119. Like a jackal caught in an island.

120. දත් නිහට මැදතියෙන දිව වාගේ.

120. Like the tongue in the midst of thirty teeth.

(Applied to a man who maintains his position, although surrounded by difficulties).

121. දුන්නා දුනුගොමුවේ,
ඊතල කිතල ගොමුවේ,
රාල මිගමුවේ,
මුවෙක් ඇඹුවයි සබරගමුවේ.

121. The bow (is) at Dunugamuwa.
The arrows at Kitalagamuwa,
The husband at Migamuwa,
A deer has cried at Sabaragamuwa.

(This stanza is quoted in reference to wild and unconnected talk).

122. ඇතන් ඇතන් දල දෙනකොට මැද තියෙන තෝර ගැටෙනවාළු.

122. When one elephant fights with another, the *tóra* bushes lying between them are bruised.

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* An ancient term for a village headman, it is still in use in some parts of the Island.

† A sort of fine grain so called, *Nachereen*.

123. යත්තල් ගොඩ හර කුඹ දියෙත්බෑ ගොඩත්බෑ.

123. The cattle of *Yattalgoḍa* do not thrive either in land or water.

(Applied to persons who are stubborn and unmanageable under whatever circumstances they may be placed).

124. බිරටහක්පිංබාවාගේ.

124. Like blowing a chank to a deaf man.

125. නයාට ගැහූ ගල වාගේ.

125. Like a stone cast at a cobra.

(An injury done to a vindictive man. A cobra is supposed to be vindictive and unforgiving).

126. ලාහට ගෙමඩි එකතු කරන්නාවාගේ.

126. Like collecting frogs in a *láha.*

(A wide-mouthed vessel used as a measure of grain.)

127. බුරුල්ල නියැද්දී අ හෙන් කිරි දෙවින්ට හැදුවා වාගේ.

127. Like attempting to milk a cow of its horns, instead of its udder.

128. බුදුනුත්වැදගණ කෙ මිනත් බලාගණ එනවා.

128. He worships Buddha, and looks at his *kemina* also.

(Keminana, is a sort of basket used in catching fish).

129. අතේ හකුරු පොල් ඇත්නම් කොයිගඟේ දියත් දියළු.

129. If I have jaggery and cocoanut in my hand, it does not signify of what river I drink.

(The above is a line of the following stanza, which has passed into a proverb :—

නයිවගේ වයිර අප දුවුවාම හිතේ,
ලෙයි නිගේ කොහෙන්වත් කරුණාව නැතේ,
ඇයි මගේ හකුරු පොල් නිවුනිනම් අතේ,
කොයි ගඟේ දියත් දියවර නොවෙද කතේ.

(Like a cobra capella, thou art angry when thou seest me,
No pity whatever dwells in thy breast,
Why O woman, what does it signify of what river I drink,
If I have jaggery and cocoanut in my hand!)

130 තෙල්බිඳ්ද අරවාගඩ ගොහින් මුරුවට බිඳ්ද වැටුනා වාගේ.

130. Like what happened to him who went to get the tax on oil removed, and had to pay tax on *muruwata* also.

(The refuse of sesamum grain after the oil has been extracted).

(The above has reference to the following story:—
A man went to a King to complain of the tax on sesamum oil, but he was so much confounded in the royal presence, that when the King demanded to know what he wanted, he said that he came to request that a tax might be imposed on the refuse of the sesamum seed.).

131. තමුන්නේගෙයි දොර බැඳලා අනුන්නේ ගෙයි බිල්ලන පන්නනවාළු.

131. It is said that some persons shut the doors of their houses, and busy themselves in driving away dogs in others' houses.

132. හාමුදුට බයේ පැලට යනවා දිවියාට බයේ බිමට බහින්නේනෑ.

132. Goes to the *pela* (watch-hut in a paddy field) for fear of the master, but does not get down from it for fear of the chetah. .

133. හැමදා කාර නියන් එකා වැහිවලාවෙන් කාම්මුතුයි.

133. One shower of rain removes the effects of a whole season of drought.

134. බඩහැලයා හමහක් හැළි වලං එක පොළිපාරෙන් කාම්මු තුයි.

134. One blow from a club breaks the pots which required six months for the potter to make.

135. ඔන්විල්ලාව එහාට ගියොත් මෙහාටත් ඒවි.

135. If the swing goes forwards, it will come backwards again.

136. රෑ දුටුවලේ දවල් වැටුනා වාගේ.

136. Like falling into a pit which had been seen in the day-time.

137 පින්කම් අස්සේ වලස් සු නටවන්ට යන්නාවාගේ.

137. Like going to make bears dance in the midst of a *Pinkama (religious festival.)*

(*Spoken of persons who join in a good or laudable undertaking, from selfish or unworthy motives).*

138. කැඳක්ඕනෑ රැවුලත් ඕනෑ.

138 One must have his *kanji* (rice-gruel,) and his beard too.

139. දුවනමුවන් දැක නොදමන් නෙඵපලා.

139. Don't throw away the herbs you have gathered when you see deer running.

140. නිඹ්බොටු ගහට කරි විලවැලඟියාවාගේ.

140. Like a *kariwila* creeper which entwines a *tibbotu tree.*

(*Spoken of the union of a bad man and a bad woman. The fruit of both plants are very bitter.*)

141. තුන්තුකුඩියට ගියත් ඔය අතපයමළු.

141. Your hands and feet are the same even if you go to Tuticoreen.

142. වැවට කැපුන් කඩත් ගමට කානවැන්දුම්ත් එක වාගෙයි.

142. A breach in a tank, and a widow in a house are alike.

143. එළිපත්තේ ඉන්න බලලා වාගේ.

143. Like a cat sitting on the threshold.

(*A man of unsteady and wavering turn of mind. It is uncertain whether the cat in the position described, would jump into the room, or out of it*).

144 වත්තා බද්දට දීලා ඇස්සට දනියෙවුවා වාගෙයි.

144. Like renting out one's garden, and begging for a slice of cocoanut.

145. මීයන් ගරණ්නේ අත ලෙවකාඩයි.

145. It is to lick one's finger that one puts his hand in a bee-hive.

146. ඉඟි කලාම නොතේ රෙණඅයට කෙල මෝලෙන් ඇන්නත් තේරෙන්නේ නෑ.

146. Those who cannot understand when a wink is made, cannot understand even when a blow is given with a *kela móla*.

(*A rice pounder with a hoop of iron attached to the end*).

147. කිරිමුදට හඳ පෑවුවා වාගේ.

147. Like the moon shining on the milky ocean.

148. යන්ට පුළුවන් අයට බැද්දෙ රජමාවතේ.

148. To those who can walk, even the jungle is a royal road.

149 බැද්දට පායාපු හඳ වාගේ.

149. Like the moon shining in the desert.

150. ගඟ දිය බීලා මුදට ආවඩනවා වාගේ.

150. Like drinking of the river and blessing the sea.

151. උඩපැන්නොත් බිම වැටේ.

151. If you jump up, you will fall down.

152. උඩබලාගණ කෙල ගැහුවොත් මුනේ වැටේ

152. If you look up and spit, the saliva will fall on your face.

153. ඉබ්බන්නෙන් පිහාටු ඉල්ලනවා වාගේ.

153. Like asking for feathers from turtles.

154. දෙර තියෙන පොල් බෑයබල්ලේ ගෙනියනකොට ගෙයි තියෙන පොල්බෑය දමා ලාගැහූ මිනිහා වාගේ.

154. Like the man who finding a dog carrying away half a cocoanut that was lying outside the house, threw at him the half that was inside the house.

155. දුවන්නාන් පස්සේ ගොට එළදෙනත් දිවුවාවාගේ.

155. Like the short-tailed cow who ran because the others ran.

156. උනහපුළුවාට උගේ දරුවා දරුමැණිකළු.

156. To the loris, his child is a jewel of a child.

157. අසූචි කෑපූ ඌරාට කිරිබත් දුටුවාම වමනේ.

157. The pig who had been fed on fœces, nauseates rice boiled in milk.

158. පඬිතායෝ දහස් එක්කාවාදකරනත් එක මොඩයෙන් එක්ක බැරිළු.

158. It is easier to argue with a thousand intelligent men, than with one fool.

159. පාළුගෙයි වලන් බිඳින්නා වාගේ.

159. Like breaking pots in a deserted house.

160. කිරි කලයක් දෙවලා ගොම ටිකක් මුනුකළා වාගේ.

160. Like mixing a little cow-dung in a pot of milk.

161. අහසට යන්ට ඉනි මං බැන්දා වාගේ.

161. Like setting up a ladder to reach the sky.

162. රුවිල පිලිස්සිච්ච මිනිහාගෙන් ගින්දර ඉල්ලුවා.

162. One asked for fire from him whose beard was on fire.

163 කුරක්කන් කඩ බැරුව රූනා ගියාවාගේ.

163. Like the man who went to Rúna to avoid eating *kurakkan*.

(*In Runa, the chief article of food is kurakkan*).

164. අනුන්ගේ ඉපාරවට වඩා තමුන්ගේ විදුරුමහ හොඳයි,

164. One's own gum is better for him than another man's axe.

165. උදේගිට දිය ඇද්ද මිනිහත් සවසඇවිත් කාලේ බින්ද මිනිහත් එකසමවුනා.

165. The man who drew water from morning, and the man who came in the evening and broke the pot were treated alike.

166. එක මිනිහෙන් සූනිරි වල රස කීවා වාගේ.

166. Like the man who described the taste of sugar candy.

ON " PARANGI." By Dr. Boake, C.C.S.

Before entering on the subject of this paper I wish to say a few words, which may perhaps tend to dispel an idea which I know is very commonly entertained by old residents in this country, namely, that natives have so great a prejudice against European medical treatment that they will rather die than resort to it. The fact is that, hitherto, natives in general, have had no opportunity of duly appreciating the good of it, for, with few exceptions, practitioners of European medicine do not lay themselves out for practice among the natives, who, in consequence, have been obliged when their purses have been exhausted by their own Vedarálas, (doctors) to live or die without any treatment at all.

It is true that there are in some places Government Hospitals, but to them the natives have really an objection. The Medical School which has lately been instituted by substituting a number of young men, skilled in the principles of rational treatment, for the present Vedarálas, who are either grossly ignorant, or at best skilled in the false theories of winds and humours, will, in time, do much to spread the desire for European medicine.

Parangi Leda.—*The loathsome disease.*

The etymology of the word is not agreed upon, and it is therefore with some diffidence that I venture to suggest *loathsome* as the true rendering of the word Parangi.

Marshall seems to see a resemblance between this word and " Portuguese"*—the inference being that it was introduced into the island by that people.

* See Dr. Loos's Report.

This idea cannot be maintained, if it is a fact (as I believe) that Parangi is by name described in ancient Oriental writings, but, whether described or not, there can I think be very little doubt but that, like kindred affections in other countries, it has existed from the earliest times.

Parangi (from para, other, or vile, rangabody) must not be confounded with ordinary syphilis, as it differs in origin and in its progress from it.

It is apart from the object of this paper, and foreign to the purposes of the "Society," to enter into a minute examination of the classification of this disease; my object is merely to state my experience of it, and to suggest a means of alleviating the misfortune of an extensive district. In 156 (one hundred and fifty-six) cases of Parangi in children and adults treated by me, iodide of potassium in every instance removed the symptoms. Several cases of extensive ulceration which had been going on for years healed in a few weeks. I gave cod-liver oil with the iodide in some cases, but it is expensive and not essential, except where the emaciation is extreme.

The evidence before me is partly in favor of the opinion that the disease is *hereditary;* but I am persuaded that in nearly all the cases in which a history is given of Parangi in the parents, there is no connection congenitally, but that the disease is communicated after birth, from ordinary parangi sores, or the secondary sores of acquired disease. But be this as it may—unless some means are adopted for supplying the affected population of the Vanni with iodide of potassium, and a sufficiency of rice, Parangi will still remain as a deadly incubus on the people. I am afraid the supply of rice would be too expensive; but if Government would undertake the distribution of the

medicine, a voluntary collection would very soon raise the money to pay for the rice.

Directions for the Cure of Parangi.

For Children, internally.

Pot. Iod. from two to ten grains, dissolved in one or two ounces of water, three times a day.

For Adults.

From ten to thirty grains, dissolved in three or four ounces of water.

If there are sores they must be kept clean and bathed two or three times a day.

If the medicine causes headache, itching of the eyes, or sore throat, stop it for a day or two, and begin again.

TEXT AND TRANSLATION OF A ROCK INSCRIPTION AT THE BUDDHIST TEMPLE AT KELANIYA.

By Louis de Zoysa, *Mudaliyar, Chief Translator to Government.*

I have the pleasure to lay before the Society the text and translation of an inscription on a slab of stone at the Buddhist Temple at Kelaniya. It records an account of the repairs executed in this temple by King Parákkrama Báhu, who reigned (according to Turnour) between A. D. 1505, 1527; (A. B. 2048, 2070), at Jayawardhanapura, now called Kótte, near Colombo.

There is nothing remarkable in the inscription which seems to call for any special remark, either as regards its language, which abounds in high sounding Sanskrit words, and inflated epithets characteristic of the age in which it was written, or in the forms of letters used, which are, with very few exceptions, identical with those in use at present.

The king alluded to is Dharma Parákkrama Báhu, the 152nd sovereign in Mr. Turnour's list of the kings of Ceylon, in whose reign, "the Portuguese first landed in Ceylon, and were permitted to trade."

In looking however into the historical works for particulars relating to the history of this king, I was startled to find that both the Mahâ Vanso and Rájaratnákara, entirely omit his reign, making his brother and immediate successor, Vijaya Báhu, supply his place; while the Rájâvali (which Mr. Turnour seems to have followed in compiling his epitome) gives a graphic and interesting account of his reign. I did not however feel any hesitation in giving preference, as regards authenticity, to the version

found in the Rájavali, as this work bears internal evidence of its being a contemporaneous record, while it is well known that the Rájaratnákara is comparatively a recent work, and that this portion of the Mahâ Vanso too, was compiled so recently as 1758, "by Tibboṭuwáwe Terunnánse, by the command of Kirtsri, partly from the works brought during his reign by the Siamese priests (which had been procured by their predecessors during their former religious missions to this island), and partly from the native histories which had escaped the general destruction of literary records in the reign of Rája Sinha I."*

Turning casually however to the Dondra inscription No. 1, published by Mr. Rhys Davids in the Society's Journal for 1870-71 (p.p. 25-26), I have, to my great surprise, found it stated therein, that king Vijaya Báhu ascended the throne in the year of Saka 1432, (A.D. 1510) thus supporting, or rather seeming to support, the version given in the Mahâ Vanso and Rájaratnákara, and contradicting that of Rájavali, which is supported by the present inscription!

The discrepancy between the date given by Turnour, and that recorded in the Dondra inscription, has attracted Mr. David's notice, and he remarks,

"It is extremely strange—and worthy of all the greater attention, that this is not the only instance in which such a discrepancy occurs—that in the year 1432 of Saka, which is 1510 of our era, the reigning Cakrawarti, or Overlord (as given in Turnour's list, was not Sanga Bó Vijaya Báhu who came to the throne in 1527, but his brother Dharma Parákrama Báhu, &c." He goes on to

* Mr. Turnour.

add, "It can scarcely be disputed that unless this discrepancy can be satisfactorily explained away, our present dates must yield to the authority of this undoubtedly contemporaneous record."

It would however now seem from what I have stated above, that the discrepancy is not only between Turnour's date and that recorded in the Dondra inscription, but also between one series of writers and another, and between one "contemporaneous record" and another!

I shall not at present attempt a solution of this strange historical problem, beyond expressing my belief that the assumption of the sovereignty by Dharma Parákkrama Báhu was disputed by his brother Vijaya Báhu, and that, at least for a time, one part of the nation (probably those in the south) acknowledged the latter as sovereign, while the rest adhered to his brother; and indeed this view of the matter seems to derive support from the following facts mentioned by Mr. Turnour in his Epitome.

"His (Dharma Parákkrama Báhu's) reign was disturbed in the early part by the competition of his brothers, whom he succeeded in reducing to submission."

With reference to Mr. David's remarks, as to the existence of other discrepancies, I think it due to the memory of that distinguished scholar and Orientalist, the late Hon'ble George Turnour, (to whose labours the literary world is mainly indebted for all that is known of the ancient history of Ceylon,) to state that the probable existence of such discrepancies as those alluded to were anticipated by him. He himself notices one or two in his introduction to the translation of the historical inscriptions at Mihintalé, Polonnaruwa, &c.

The existence of these apparent discrepancies are no doubt attributable to the causes thus explained by Mr. Turnour.*

"Although Mr. Upham has been misled into the assertion (History of Buddhism, page 31) that the Maha Wanso contains dates most carefully affixed to every transaction of the missions, or the promulgation of Buddha's doctrines," there are but few dates given either in that work or in the Sinhalese histories. No other mode therefore, of adjusting the chronology of the native history could be had recourse to, than that of adding successively the number of years each sovereign has reigned, to any one of those given dates. As the fractional parts of the year are not generally specified with respect to the term of each reign, a progressively increasing error must necessarily accumulate from one given date to another, when an opportunity is at last afforded for correcting the series of anachronisms. I consequently consider the apparent defects in the chronology of the native histories to be one of the most convincing proofs of their genuineness and authenticity, as they establish beyond all probability of doubt, the absence of any attempt to adjust the individual and collective terms of the reigns of the several kings, comprised between any two given dates, to the full period embraced between them."

One of the most important objects to be gained by the decipherment of rock inscriptions, is the help they are calculated to afford us in the correction of the defects in Sinhalese chronology above alluded to, and in this

* See, Turnour's introduction to the historical inscriptions of Mihintalé, Polonnaruwa and Dambul, *Ceylon Almanac* for 1834, p. 173.

respect the present inscription is not without its use. It enables us to correct Turnour's adjustment of Sinhalese chronology, by three years. According to Turnour, king Dharma Parákkrama Báhu ascended the throne in the year of Buddha 2048, but according to our inscription, the date of his accession was 2051, three years later. And may we indulge the hope that the noble intentions of our enlightened ruler with regard to the collection and decipherment of inscriptions will soon be an accomplished fact, and we may then be in a position not only to correct the few slight defects which may still exist in Sinhalese chronology, but also to add an entirely new and deeply interesting chapter to the early history of Ceylon.

L. De Zoysa.

TEXT.

සවසත්‌ශ්‍රී ධර්ම්ම ධිරජ ත්‍රිභුවනාභාඥතර සාක්‍යකුල නිලක සකල ලොක දිවාකර අමෘතමහා නිර්ව්‍රාණ දායක ගෞතම සර්ව්‍වඥ රාජොත්තමයානන් වහනසේට දෙදස් එන් පනස්වනුව ලංකාරාජ්‍යශ්‍රියට පැමිණි ත්‍රිසිංහළාධිශ්වර දරරාජ රාජශ්වර සාමන්ත රාජක්‍රීට රත්නමාපාලි යෙ චිත පාදඤ්ජ සිසිරකිරණායමාන කීර්ත්‍ති බන්ධ බන්ධුර සුප්‍රථ්‍ර ගුනරත්නා ලංකාත විසුඛ බුඛාඛ්‍යුර ශ්‍රීමත් ශ්‍රීසංඝබොධි ශ්‍රීපරාක්‍රමබාහු චක්‍රවර්ත්තීනි සවාමීන්වහන්සේට දසනවවන නවසපුරළුකොළොඹ රජමහකාළුනි විහාරයෙහි බුදුන් වැඩහුඳ වලඳ ධර්ම්මදේසනාකාළාවූ උත්තමස්ථානයක එහි මේ දවසවට ප්‍රථිවාසව නිබෙන විංයම් කර්ම්මාදියි නියමිදැන වෛත්‍යයෙහිවූ ඝ්‍යළුනැන් ජීර්ණව නිබෙනැයි අසා රජගෙන් නොයෙන් වියදමුත්දී කාර්යනට අයගණ්න් නායකා තැනට හා පරාක්‍රම්බ හු විජය නකොන්නර අමාත්‍යයනට භාරකළපසු චෛත්‍යයෙහි සුසුද්ධ්‍රියම් ආදී සුන්බුන් කම්මානතාන්කරවා උතුරුදිග සැපරියන් යාළිආල් පවුරක්කා නැගෙනහිර

සඳහාඛ පහනහින්යුකත ගල්පඩියකුත් බඳවා සමාධි පිළිම ගෙය නාපිළිමගෙය මෙම විහාරයෙහි පූර්වදිග වාසල මෙම තැන ගල්පඩිය කුඩාත්‍රිවන්කය තෙල්කටාරගෙය සාංඛික වැසිකිලිය බස්නාගිර වාසල ඇතුළුවූ තැන් මුල්පිසකාරවා පස්මහල් පාය සැලපිලිමගෙය සිවුරුදැගෙය යනාදීවූ මෙකී තැන් කවුකොහොල් කරවා අනිකුත් විහාරයෙහි නොයෙන් සුන්බුන් කඹින්නත් පිරිමස්වා සමෘඩ්කාරවූපසු ශ්‍රීනාමයෙන් මෙහියන විහාරයෙහි අපගේ විර්දුනාමයන් පවතින්ට උවමැනවැයි ගෙඤ්ඤි නායකතැනට හා ශ්‍රීරාජරත්නාපිටිවන් තෙරත් අස්වා විහාර සනහකයෙන් ඇතතල අස්සල මුළුතැන්ගෙය උළුපැන්ගෙය ආදීවූ නොයෙක් ධූරාවේක්ෂයටහා දෙමළ සිංහළ අය ආදීවූ නොයෙක්දෙනාට මිලයටයිපිසෙන්හා අය ප්‍රවේනියට පිටියෙන් බිඳුවට අමුනහා වපටඅතර නැලියගන්නා ලාෘසඑ වී දෙපැලක් අයදෙනවත් පොල්ගස් දසයට පනමක් බැගින් පඬුරුදෙනවත් නියමයොට හිරුසඳ පවත්නාතෙක් පවතිනාලෙසට පිංකම මුදුන්පත්කාරවූහෙයින් එනදවස පැමිනෙන රජ රජ මහා මාත්‍යඳින්විසින් දිවුනන්ව වඩිනකරවා පිංපුරවාගන්නා ලෙසට සලස්වා සීලාලේඛ්‍යයන්කාරවා පිහිටුවන නියා යෙන් ජයවඩ්නකෝට්ටයෙහි ශ්‍රීමාලිගාවේ සිංහාසනයෙහි වැඩසිඳ මුදලිවරුන් මැදවදුල මෙහෙවරින් මේසීලාලේඛ්‍යය ලියාදුන්බවට සන්හස් තිරුවිරහන්පෙරුමාළුම්හ—රජමහ ඇලනියට හිඳිවත්ගල මල්සන්නොටයි, කුඩාඹාබෝලයි, ගල්වළුතොටයි, ගොන්ගිතොටයි, ගොඩරබලගල්පොරාතයි, උරුබොරුව ලියද්ද ඇතුළුව ගෝනසේනේ බැඹයි, රම්මුදුඇලයි, කොස්ගොවුනලයි, වටගලයි, ඇසලපළුවයි, මසුරුතොවේ ඇතුලයි, දිවියාමුල්ලේ ඇතුලයි, ඉම්බැඹයි, පහගඟයි.

TRANSLATION.

On the eleventh day of the bright half of the month of *Nawan*,* (February-March) in the 19th year of the reign of his imperial majesty Sri Sanghabodhi Sri Parákrama Báhu, the paramount lord of the *three Sinhalas*,† sovereign lord of other Rájas, on whose lotus-feet rested bees-of-gems in the crowns of kings of the surrounding (countries); whose fame was serenely bright as the beams of the moon, who was adorned by many noble and heroic qualities resembling so many gems, who was an immaculate embryo Buddha, and who ascended the throne of Lanká in the 2051st year of the era of the omniscient Gautama Buddha, the prosperous, majestic, sovereign lord of Dharma, who gladdens the three worlds, who is a *tilaka*‡ ornament to the royal race of Sákyas, and who is the sun of the universe, and the giver of the undying Nirvána.

(The King) having considered (the fact) that the Vihára at Rajamaha Ḳelaniya was a holy spot where Buddha has vouchsafed to sit, to partake of food, and preach his doctrines, inquired what works of merit by way of repairs there were to be executed there, and having ascertained that the Chaitya and all other edifices were in ruins, gave much (money for) expenses from the royal palace, and assigned the task of accomplishing the work to the chief officer of the royal revenue, and the minister Parákrama Báhu Vijayakkónára, who caused the execution of the plastering of the Chaitya, and other necessary repairs and works;

* *Nawasa*, on the stone. Probably a mistake of the engraver, for *nawan masa*.

† Lit. "*the three Ceylons*," or "Three-fold Ceylon"; in reference to the ancient divisions of Ceylon, *Pihiti*, *māyā*, and *Ruhunu*.

‡ An ornament on the forehead. A title implying *pre-eminence*.

built a parapet wall of granite sixty cubits (in length) on the north, constructed a flight of steps with a *Sandakadapahana* (a semi-circular stone serving as a stepping stone) on the east; thoroughly rebuilt the *Samadhi* image-house, the *Napilimageya* and the eastern gate of the same monastery and its flight of stone-steps, the minor *Trivanka* house, the *Telkataragcya*, the latrine common to the priesthood, and the east gate ; repaired breaches and injuries, &c., of the *Pasmahalpaya*, *Selapilimageya*, *Siwurudageya*, &c., and repaired various other breaches, and other works in the Vihára. And after having accomplished this work thoroughly, (the king) thinking it desirable that His Majesty's royal name should be perpetuated in this Vihára, conferred on the chief priest of the monastery, the title of *Sri Rajaratna Piriwan Tera*, and ordained that all who occupied the lands of the temple, those who served in the elephant stables, the horse stables, the kitchen, bath rooms, and persons employed in various other occupations, the Tamil and the Sinhalese, and those who paid rent and who owned land, should give (to the Temple) two pólas of paddy (measured) by a *laha* which contains 4 *nelis* for every amuna of sowing extent, and money payment at the rate of one *panama* for every ten cocoanut trees, and thus accomplished this meritorious work so that it may last till the sun and moon exist.

In obedience to the command delivered by His Majesty, sitting on the throne at the royal palace of Jayawardhan Kotte, in the midst of the *Mudalivaru* (nobles) that a writing on stone should be made in order that kings and ministers in future ages might acquire merit by preserving and improving this work, I, *Sanhas Teru-*

varahan Perumal have written and granted this writing on stone.

The boundaries to Rajamaha Ḳelaniya are, Wattala, Malsantoṭa, Kuḍá Mábóla, Galwalutoṭa, Gongitoṭa, Goḍarabgala Galpotta, the stone pillar at Gonaséna, including the Uruboruwa Liyedda, the canal Rammudu Ḷla, the Kessaketúgala, the Waṭagala, Ṣsalapaluwa, the inside (?) of Pasurutoṭa, the (?) of Dewiyámulla, the boundary stone, and the great river.

CEYLON REPTILES: BEING A PRELIMINARY CATALOGUE OF THE REPTILES FOUND IN, OR SUPPOSED TO BE IN CEYLON, COMPILED FROM VARIOUS AUTHORITIES, BY WM. FERGUSON, F.L.S.

THE following Catalogue of the reptiles found in, or supposed to be in Ceylon, has been compiled chiefly from the great work of Dr. Albert Gunther on the Reptiles of British India; and from papers by him in the Annals and Magazine of Natural History; and the Proceedings of the Zoological Society of London. The other works or writings which have been consulted are the Prodromus Faunæ Zeylonica, &c., by the late Dr. Kelaart, with separate articles in its appendicies in the Journal of the Ceylon Branch of the Royal Asiatic Society, and Annals and Magazine of Natural History by the same author where descriptions on new, or little known, Ceylon reptiles have been given. Russell's two volumes on Indian snakes, the colored figures in which have been of great use in enabling me to identify several of our Ceylon snakes; Cantor's list of Malayan reptiles, republished in the Journal of the Asiatic Society of Bengal; "Indian Snakes: an elementary Treatise on Ophiology, with a descriptive catalogue of the Snakes found in India, by Dr. Edmund Nicholson, Royal Artillery, Madras, 1870," an excellent work, which I beg strongly to recommend. Various papers by the late accomplished Dr. Jerdon, in the Journal and Proceedings of the Asiatic Society of Bengal; Emerson Tennent's Natural History of Ceylon; and several valuable papers in the Journal and Proceedings of the Asiatic Society of Bengal, by Mr. Blyth, late Curator of the Asiatic Society's Museum at Calcutta, by Dr. Anderson, the

present Curator of the Indian Museum, W. Theobald, W. J. Blanford, &c.; and by Dr. Stoliczkas, Major Beddome's Articles in the Madras Monthly Journal of Medical Science; whilst I was favored by visits from Major Beddome and Dr. Anderson, who inspected my own collection of Ceylonese Reptiles, and helped me to name some of them.

I have also read Dr. Stoliczkas very able and exhaustive articles on the Geckotidœ with great pleasure, particularly those on the genus Hemidactylus; but I am nevertheless convinced that the synonymy of these and several other Geckotidœ are involved in interminable confusion, and cannot possibly be unravelled until a regular interchange of specimens takes place.

Dr. Gunther in the British Museum, and the gentlemen who have the privilege of examining the Ceylonese reptiles in Calcutta, so freely sent to both these places by the late Dr. Kelaart, are in a far better position than any Naturalist in Ceylon in respect to the reptiles described by Dr. Kelaart; as we have not here a single specimen of Dr. Kelaart's Reptiles, so that we have to trust to the references and descriptions of these gentlemen. I could quote the references to some of our Ceylon Geckotidœ, to prove that it is impossible to settle the synonymy of these until ample numbered duplicate specimens of each supposed species are sent to Dr. Gunther for his decision.

I cannot conceive that any living authority on Indian reptiles can be in a better position than Dr. Gunther to settle all these vexed questions; and therefore I hope to have his assistance in naming some of our Lizards and Batrachians, which are very difficult to recognise from mere descriptions.

The nomenclature used by Dr. Gunther in the descriptions of Indian snakes, is generally so clear and distinct, and the terms so few and simple, that I have had scarcely any trouble in identifying those of our Ceylon snakes which have been collected by me or sent to me hitherto; but I fear the nomenclature used in the descriptions of such families as the Geckotidœ and the Batrachians must be amended before these reptiles can be identified from mere descriptions. In these respects I fear that the definition of "*Scotch Metaphysics*," viz., a "man trying to explain to others what he does not understand himself," applies to a great many of the writers on these families. The only cure for this ambiguity will be a free exchange of named specimens between Naturalists.

I have been busy for some time past collecting information about our Ceylon reptiles, and have ample notes on a considerable number of the species; but as there are still several of them which I have not as yet been able to procure, I consider it advisable to send on this bare list of the scientific names of our Ceylon reptiles, until my notes are completed.

I have added a complete alphabetical list of the Sinhalese names of our reptiles, and another of the Sinhalese genera, with the specific names following each supposed genus.

These lists have been compiled from various manuscripts in my possession; and from articles by Mr. John Perera, of Colpetty; and the Rev. Mr. Perera of the Wesleyan Mission, who has published an interesting list in some numbers of "*The Friend*."

Some of the reptiles in the scientific list are inserted on the authority of lists of those in the Indian Mu-

seum, said to be from Ceylon; and others, such as the sea snakes stated to be found in the Indian Ocean, are included on the supposition that most of them will be found on the coasts of Ceylon. Of these latter only about half-a-dozen have hitherto been identified as caught on our coasts.

W. FERGUSON.

COLOMBO, 4*th Feby.*, 1873.

CLASS REPTILIA.

ORDER CHELONIA.

LAND TORTOISES—TESTUDINIDÆ.

Testudo elegans, Schöpff.
Testudo indica, Gmelin.

FRESHWATER TORTOISES. EMYDIDÆ.

Emys trijuga, Schweigg.

FRESHWATER TURTLES. TRIONYCIDÆ.

Emyda ceylonensis, Gray.

MARINE TURTLES. CHELONIDÆ.

Caouana olivacea, Eschsch.
Chelonia virgata, (?)
Caretta squamata, L.
Dermotochelis coriacea, L.

THE ORDER OF LIZARDS.—SAURIA.

CROCODILES. CROCODILIDÆ.

Crocodilus palustris, Less.
Crocodilus porosus, Schneid.

Varanus dracœna, L.
Hydrosaurus salvator, Laur.

SKINKS. SCINCIDÆ.

Euprepes rufescens, Shaw.
Euprepes olivaceus, Gray.
Eumeces taprobanensis, Kelaart.
Riopa hardwickii, Gray.
Riopa punctata, Gray.

ACONTIADS. ACONTIADIDÆ.

Acontias layardi, Kelaart.
Nessia burtonii, Gray.
Nessia monodactyla, Gray.
Nessia thwaitesii, Gthr.

GECKOS. GECKOTIDÆ.

Gecko monarchus, D. and B.
Geckoella punctatus, Gray.
Hemidactylus triedrus, Daud.
Hemidactylus maculatus, D. and B.
Hemidactylus pieresi, Kelaart.
Hemidactylus frænatus, D. and B.
Hemidactylus leschenaultii, D. and B.
Hemidactylus coctœi, D. and B.
Peripia peronii, D. and B.
Peripia cantoris, Gthr.
Gymnodactylus triedrus, Gthr.
Gymnodactylus frænatus, Gthr.
Gymnodactylus kandyanus, Kelaart.
Gymnodactylus mysorensis, Jerdon.
Gymnodadactylus scalpensis, Ferg. M. S.

AGAMES. AGAMIDÆ.

Otocryptis bivittata, Wiegm.
Lyriocephalus scutatus, L.
Ceratophora stoddartii, Gray.
Ceratophora tennentii, Gthr.
Ceratophora aspera, Gthr.
Cophotis ceylanica. Peters.
Sitana minor, Gthr,
Calotes versicolor, Daud.
Calotes mystaceus, D. and B.
Calotes ophiomachus, Merr.
Calotes nigrilablris, Peters.
Calotes nemoricolla, Jerdon.
Calotes liocephalus, Gthr.
Calotes sp., Beddome, M S.
Salea horsfieldii, Gray.

FAMILY OF CHAMELEONS. CHAMŒLEONIDÆ.

Chamœleo vulgaris, Daud.

THE ORDER OF SNAKES. OPHIDIA.

FIRST SUB-ORDER. INNOCUOUS SNAKES.

BLIND SNAKES. TYPHLOPIDÆ.

Typhlops braminus, Daud.
Typhlops mirus, Jan.
Typhlops pammeces, (tenuis) Gthr.
Typhlops sp., Beddome, M S.

SHORT TAILS, TORTRICIDÆ.

Cylindrophis maculatus, Linn.

ROUGH TAILS. UROPELTIDÆ.

Rhinophis oxyrhynchus, Schneid.
Rhinophis punctatus, Mull.
Rhinophis philippinus, Cuv.

Rhinophis trevelyanus, Kelaart.
Rhinophis blythii, Kelaart,
Rhinophis planiceps, Peters.
Uropeltis grandis, Kelaart.

DWARF-SNAKES. CALAMARIDÆ.

Aspidura brachihorros, Boie.
Aspidura copii, Gthr.
Aspidura trachyprocta, Gthr.
Aspidura guntherii, Ferg., M S.
Haplocercus ceylonensis, Gthr.

OLIOGODONTIDÆ.

Oligodon subgriseus, D. and B.
Oligodon sublineatus, D. and B.
Oligodon templetonii, Gthr.
Simotes russellii, Daud.
Simotes albiventer, Gthr.

COLUBRIDÆ.

Ablabes humberti, Jan.
Cyclophis calamaria, Gthr.
Odontomus nympha, Daud.
Cynophis helena, Daud.
Ptyas mucosus, Linn.
Ptyas Korros, Reinw.
Tropidonotus quincunciatus, Schleg.
Tropidonotus stolatus, Linn.
Tropidonotus blumbicolor, Cantor.
Atretium Schistosum, Daud.

FRESHWATER SNAKES. HOMALOPSIDÆ.

Fordonia unicolor, Gray.
Gerarda bicolor, Gray.
Cerberus rhynchops, Schneid.

TREE-SNAKES. DENDROPHIDÆ.

Dendrophis picta, Gthr.
Dendrophis caudolineolata, Gthr.
Chrysopelea ornata, Shaw.

WHIP-SNAKES. DRYIOPHIDÆ.

Passerita mycterizans, Linn.
Passerita purpurascens, Gthr.

DIPSADIDÆ.

Dipsas ceylonensis, Gthr.
Dipsas barnesii, Gthr.
Dipsas forstenii, D. and B.
Dipsas forstnii, var ceylonensis, Ander.

LYCODONTIDÆ.

Lycodon aulicus, Linn.
Lycodon striatus, Shaw.
Cercaspis carinata, Kuhl.

ROCK-SNAKES. PYTHONIDÆ.

Python molurus, Linn.

SECOND SUB-ORDER—VENOMOUS COLUBRINE SNAKES

TERRESTRIAL. ELAPIDÆ.

Naja tripudiads, Merr.
Bungarus cæruleus, Schneid.
Bungarus ceylonensis, Gthr.

SEA-SNAKES. HYDROPHIDÆ.

Platurus scutatus, Laur.
Platurus fischeri, Jan.
Hydrophis jerdoni, Gray.
Hydrophis major, Shaw.
Hydrophis robusta, Gthr.
Hydrophis cærulescens, Shaw.

Hydrophis spiralis, Shaw.
Hydrophis cyanocincta, Daud.
Hydrophis subcincta, Gray.
Hydrophis chloris, Daud.
Hydrophis lindsayi, Gray.
Hydrophis gracilis, Shaw.
Hydrophis lapemoides, Gray.
Hydrophis longiceps, Gthr.
Hydrophis stricticollis, Gthr.
Hydrophis ornata, Gray.
Hydrophis ellioti, Gthr.
Hydrophis viperina, Schmidt.
Hydrophis curta, Shaw.
Hydrophis holdsworthii, Gthr.
Hydrophis pachycercus,
Enhidrina bengalensis, Gray.
Pelamis bicolor, Schneid.

THIRD SUB-ORDER. VIPERINE SNAKES.

I. PIT-VIPERS. CROTALIDÆ.

Trimeresurus trigonocephalus, Merr.
Hypnale nepa, Laur.
Hypnale affinis, And.

II. VIPERS. VIPERIDÆ.

Daboia russellii, Shaw.

SECOND SUB-CLASS. BATRACHIANS.

THE ORDER OF TAILLESS BATRACHIANS.

BATRACHIA SALIENTIA.

Rana kuhlii, Schleg.
Rana hexadactyla, Less.
Rana cyanophlictis, Schneid.

Rana tigrina, Daud.
Rana (Hoplobatrachus) ceylanicus, Peters.
Pyxicephalus breviceps, Schneid.
Megalophrys montana, Kuhl.
Trachucephalus ceylanicus Ferg.
Diplopelma oruatum, D. and B.
Nannophrys ceylonensis, Gthr.
Bufo kelaartii, Gthr.
Bufo melanostictus, Schneid.
Bufo kandianus, Gthr.
Hylorana macularia, Blyth.
Hylorana temporalis, Gthr.
Polypedates maculatus, Gray.
Polypedates microtympanum Gthr.
Polypedates reticulatus, Gthr.
Polypedates eques, Gthr.
Polypedates nanus, Gthr.
Polypedates nasutus, Gthr.
Polypedates cavirostris, Gthr.
Ixalus variabilis, Gthr.
Ixalus temporalis, Gthr.
Ixalus femoralis, Gthr.
Ixalus leucorhinus, Martens,
Ixalus schmardanus, Kelaart.
Ixalus macropus, Gthr.
Ixalus nasutus, Gthr.
Ixalus fimbriatus, Gthr.
Ixalus adspersus, Gthr.
Ixalus oxyrhynchus, Gthr.
Ixalus pulchellus, Gthr.
Ixalus sp., Ferg., M S.

Ixalus sp. (?).
Callula pulchra, Gray.
Callula obscura, Gthr.

THE ORDER OF BURROWING BATRACHIANS.

BATRACHIA APODA.

Epicrium glutinosum, Linn.

ALPHABETICAL LIST OF THE SINHALESE NAMES OF THE GENERA AND SPECIES OF CEYLON REPTILES, COMPILED BY WM. FERGUSON, F.L.S.

Æhœ mulla.
Do. tulla.
Æsgulla.
Ahara kukka.
Attykitta.

BARIYA.

Diya.
Pala.
Depætnaya.
Diya maha.

GÆRANDIYA.

Hall.
Kaha.
Kalu.
Nil.
Pata.
Sudu.
Wall.
Gamadiya.

GEMÆDIYA.

Gas.
Goda.
Hœla.

GOYA.

Kabra.
Tala.
Hal-dandu.
Rat-dandu, J. P. 36.
Hena-kandiya.
Hoona.
Kimbul-hoona.
Halle.
Kuna-katuwa, J. P. 35.

KUSUMBA.

Gal.
Kuckula Ex. Kel, 2 p. 9.
Le-medilla J. P. 30.

MÆDIYA.

Æte.
Ætikite.
Diya.
Nil.
Maga-marua or death on the road. a small long red snake.
Manil Sabililla.
Manminiya. see magamarua, Hotadiya & Sulunaya.

MA-PILA, J. P. 33.

Kaha.

NAY. NAGA OR NAYA, COBRA.

Beruwa.
Depat.
Diya.
Eli.
Gal.
Kali.
Kalu.
Koha.
Maha.
Raja.
Sulu, same as Magamarua.

Hikanala or Sikanala, J. P. 63, Puche Brahmin.

IBBA.

Gal.
Kiri.

KALUWA.

Katta.
Tudda.

KARAWALA.

Alu.
Alu-mee.
Dangaru.
Dunu.
Gætta.
Gætta-mee.
Hil la.
Kaha.
Kalu.
Kunu.
Lay or Le.
Mal.
Nidi.
Nidi-mee,
Panina.
Pol-mal.
Tel.

KATUSSA (Calotes.)

Karamal (Cockscomb.)
Nil.
Yak (Devil) Otocryptis, or Sitana
Kill or Killa (alu) Mil, Mus, list.

KIMBULA.

Allie.
Ellie.

PALLAGOLLA.

Nidikoomba.
Pimbura.
Pitigomuwa.
Polo-ula.

POLONGA.

Alu.
Alu-mee.
Dara,
Gœtta.
Gœtta-mee.
Ralu.
Kanadi.
Kunu.
Kunu-mee.
Maha.
Mal.
Nidi.
Nil.
Pala.
Teli.
Timera.
Tick.

SUNA.

Kimbul.

TALISSA OR TELISSA, HYPNALE NEPA.

Polong.
Tip-ma-pi'la.
Serpia, Sarpia or Satta, orign of Serpent from the Sanskrit Ex. Kel.
Pallagolla Ex. Kel, 2 p. 8.
Sabaralleya, J. P. 11.
Sarpa kutekeya, J. P. 13.
Seppena, J. P. 29.

ON AN INSCRIPTION AT DONDRA.—No. (2.) BY T. W. RHYS DAVIDS, ESQ., C.C.S.

More than two years ago, I sent two inscribed stones to the Museum at Colombo;* both of which had been found among the ruins at Dondra Head, and which are probably the stones referred to by Major Forbes,† who ascribes the one described below to Parákrama Bahu the Great, who reigned from 1155 to 1186.

The inscription on one of these stones will be found translated in the number of this journal for 1870-1871 (p. 25 et. seq.); and the other in the "Indian Antiquary" for November 1872.‡ And to the conclusions arrived at there, the following may be added:

It would be very desirable if one of our members resident in Colombo, would make a fac-simile of the inscription: the text in modern Sinhalese characters, arranged in the order they occupy on the stone, is as follows:—

TEXT WRITTEN CONTINUOUSLY.

	සිරි සඟ	ගෙපර
	බොධි ශ්‍රී පරාක්‍රම බා	හුපරාවේ
	හු චක්‍රවර්ති සවා	න්පවත්
යුතුයි	මින්වහන්සේට	වාසඟ
මිනිසසු	10 වරෙස තිනෙඟ් 1	මොක්ස
.....නහාන	භූමි-මහා විහාරයට	හිපත් සැ

* See Proceedings of the C. B. of the R. A. S. 1870-1871, p. xlviii

† Eleven years in Ceylon, Vol. II., pp. 176-179.

‡ Vol. I., p. 619 et. seq. It is to be regretted that this journal has not met with more support in Ceylon. It is very well conducted and appears *regularly* every month (a very great advantage): it affords a capital medium for notes and queries, and contains may notices of great use to the Ceylon archæologist.

1. *Tinen* is doubtful.

.....මෙහි	ඇර තුංඛුරණට ග.....[2]	ඕයයුතු
ප්‍රයෝජන	තු ඇනිකළ පොල්ව	මෙ ගස ප්‍ර
එක්කොටැ	තතායි පිළිඹගෙට	යෙජන වි
නිලු සැල	ගස් 200 යි දෙව්ර	න්දිනවුන
සියයු	ජුරැ සාමිණට.....[3]	මතු මතු
තු	වඩින කළවු ගෙටැ	ත් පැළ ඉ
	යිමෙලෙසැ මෙ තුං	න්දුව්

Sri Siri Sanga Bo Sri Parákrama Bahu Cakrawartt-Swámîn wahanseṭa 10 warusha *tinen* Bhumi mahá wihárayaṭa *æra tunbu* ranaṭa *gatu* œtikala polwattayi; pilima geṭa gas 200 yi Dew-Rajuru sámințat warddhana kala wunṭa *tœ yi me lese:* mekunge paramparáwen pawat we sag mok sampat sœdhiya yutu. Me gas prayojana (*the stone has prayejana*) windinawun *matu matu* pœla in duwa yutuyi. Minissu *lantan* mehi prayojana ek-kotœ Níla sœlasiya yutu.

The words *in italics* are doubtful, but one might venture to translate as follows:—

In the 10th year of the overlord Siri Sangha Bodi. Sri Parákrama Bahu a cocoanut tope, bought for money, (near)* to the Bhúmi mahá wihára, to the image house: and 200 coconut trees† to the lord Dewa-Ràja (Vishnu.) Let those who increase these gifts, and uphold their continual inhe-

2. All this line except the word රජුට is doubtful.
3. The last two letters of this and the following line are illegible.
4. Prayejana for prayogana is a mistake of the graver on the stone.

* This dalive case may possibly be taken as the dalive of the person to whom given, and the words tun bu ranaṭa may contain a reference to the tun bo or tri-bodhi (that is the tree, image and relics of Buda (see Ceylon Friend Vol. I., 1870, p. 59). If this be so the stone will record a sumaltaneous gift to Budist and Vaishnavite shrines in 702 A. D. as a matter not calling for special remark.

† These would now occupy two to three acres and be worth about £200.

ritance, enjoy the bliss of release in heaven.* Those who enjoy the fruit of these trees ought, from time to time, to plant seedlings. People who pick up fruits ought to present them to Nila (Vishnu).

The inscription records therefore a gift to the celebrated temple of Vishnu at Dondra, by a king called Siri Sanga Bo. Sri Parakrama Bahu ; and the points specially worthy of note are the name of the king, the names given to the God Vishnu, and the numerals, so seldom found elsewhere, which are here employed.

No king of this name is given in Tournour's list, but the title is found in the Pœpiliyána Inscription by the Koṭṭa king, Sri Parakrama Bahu, (so well known as a paron of Elu poets) part of which inscription has been published by Mr. James Alwis ;† and a copy of which is in my possession. I at first thought that this king must therefore be the king referred to, but for the reasons given in the "Indian Antiquary" (loc cit), it is more probable that the inscription must be assigned to Sulu Siri Sanga Bo., who reigned from 712 A. D. to 718 A. D.

Rájawali says of this king "*Oha bœna Sri Sanga Bo raja Siyagal wehera karawa Dewu nuwara karawa Dewu-raja sangayen solos awuruddak rajjaya keleya.*‡

Which Upham (Vol. II., p. 248) translates :—

"He was succeeded by his nephew, whose name was

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* Sag-mok-sampat = Swarga-moksha-Sampatti, scarcely an orthodox Budist wish.

† Page cxcix of the Introduction to his (now rare) edition of Sidatsangarawa. This introduction contains the only sketch of Sinhalese literature which has yet been published and is full of the most valuable information : but the book is now so rare that a new edition is urgently required.

‡ Leaf ෯෨෧ (30) of the M. S. in possession H. H. Bowman, Esq.

" Sree Sanga Bo Rajah, which king caused to be built " the daggoba of Siagal, and the city Dewoo Nuwara; and, " through the assistance of Vishnu reigned for the space " of 16 years'.

The Raja Ratnákara in the passage quoted in the In- " dian Antiquary" confirms this, and adds that he *established* Vishnu at Dewu-nuwara or Dondra; (Dew-rajun pihiṭuwa see Upham, Vol. II., p. 78,) but in the Mahawamsa, though 39 verses are occupied with this kings acts, nothing is said of his having been a votary to Vishnu, while on the contrary he is pointed as a great patron of Budism.*

It is difficult to say in the present state of our knowledge (or rather ignorance) of Sinhalese literature what authority can be given to the Rájawali and Rája Ratnakara: Turnour says† that the former " was composed " by different persons at various periods and has both fur- " nished materials to, and borrowed from, the Mahávamsa," and that the latter was " written at a more recent period " (than 1347 A. D.) the exact date of which I have not " been able to ascertain, by Abhaya Rája of Walgampahe " wiháre."

It seems almost impossible, if the above remarks are correct, to accountfo r the origin of their statements except by their being founded on fact; whereas it would not be unlikely that a zealous Budist, such as the presumed author of this part of the Mahavamsa may have been induced by pious zeal to omit all reference to this evidence of the power of Hinduism, even in the extreme South of Ceylon, and in the year 702 A.D.

* This passage being too long to insert here, is appended at Note A.

† Page 2 of the introduction to Mahavamsa.

It may however be noted firstly, that if Turnour's views, given above, be correct, either of the Sinhaalese chronicles may simply have been copying from the other, so that we have only one authority, instead of two, on that side of the question.

Secondly, that though no mention is made of Vishnu in the Mahavamsa's description of Sangha Bodhi III.'s reign, yet one of his ministers and apparently his prime minister, was the Tamil Potthakuṇṭha and another Tamil Mahákanda also enjoyed the king's favor.

And thirdly that of the villages mentioned, none can be identified with those in the more Northern part of the island mentioned in the earlier parts of the Mahávamsa, whereas two, viz., Attureli (v. 13) and Nitthila-Vetthi (v. 20) are most probably identical with the modern villages Aturelia and Neṭulu-witiya both near Dondra; and Helagáma (v. 28) may possibly be the same as Heligama in Hambantota, further to the south.

As any thing relating to a contest between Budism and Hinduism in the seventh century is of great interest, it may be added, that in the list prefixed by Turnour to his Mahavamsa (p. l. xiii) king Kaluna Detu Tissa is said to have reigned in 641 A. D. at Dewunuwara, which would apparently show that Vishnu's temple had existed then at Dondra, and had even then given its name to the town; but in the same list, as given by Forbes, (vol. II. p. 294), that king is stated to have reigned at Anurádhapura, and n Rajawali (see Upham, p. 247), nothing is said (under Detu Tissa's reign) about Dondra; and in Raja ratnákara (bid p. 78) only the name of the king (as Lœmini Katara) is given in a list of sovereigns.

Finally the name diw-rája (divya-raja) used, without any qualifying word, as the ordinary name for Vishnu, is worthy of note. Déwa raja in the Mahabharata and Ramayana is invariably used as an epithet of Indra, and Sakra is now and probably always was placed in the popular estimation of the Sinhalese above Vishnu; being called dewinda in the Mahávamsa (page 47 lines 7—8.) where he gives orders to Vishnu. Vishnu is there called Uppalavanna (Utpalavarna, in Sinhalese utpala warna) which may account for the name Nila: although Nila alone is not used, either in Sanksrit. Pali, or Sinhalese books, as a name of Vishnu; and Nilakantha the blue necked, is a frequent epithet of Siva. There is however no doubt of the temple being the temple of Vishnu, and of these names refering to him.

Concerning the numerals it would be useless without a lithograph to add any thing here to what is stated in the "Indian Antiquary"; it would be very useful if same Colombo member of the Asiatic Society would furnish one; especially as in doing so some of the deficiencies of this interpretation, might be supplied.

Note A.—MAHAWANSA, ch. 46.

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1 Accaye Hatthadáṭhassa Aggabodhi kumárako
Kaniṭṭho rájino ási, siri-sanghádibodhiko
2 Dhamma-rájá ayam ási sammá-dassana-saññuto
Tasniá so puññakammáni appameyyáni 1 vattayi
3 Nikáya-ttaya-wasínam bhattaggam avalokayi
Mahápáliñ ca vaddhesi mághátañ c'evakárayi
4 Thánantarañ ca dápesi yatháraham análaye 2
Sippagottádi-yoggehi sangahese ca sangahi
5 Yattha katthaci diévá 'pi bhikkharo so mahámatí
Sakkatvá tebhanápesi 3 parittam sásan-oggadham

6 Theram so upasamkamma nágasálaṇi vásinam
Dáṭhásivam mahá pnñáṁ[3] sílavantam bahussutam
7 Sakacca[4] tan tato sutrá sammá-sambuddba-sásanam
Dhamme 'tíva pasiditra sabbá-santikaro iti
8 Sutrá theriya-vádánam pubbaññátinum[5] attano
Pápánam duṭṭha-cittanam[6] apakáre kate bahu
9 Wiháre pariwene ca innepákatike aká pṛtṛttika
Bboga-gáme ca dápesi tattha tattha babudraye
10 Vicchinne paccaye c'áká tadá amkuru teviya
Dásake pi ca sanghassa yathá-ṭhánę[7] thapápayi
11 Padhána-gharam etassa therass' áká sa-námakam
Paṭiggahetrá tam so pi sanghass' adá[8] mahámati
12 Bboga-gáme ca tass' ádá Bbarattá laṇ kihimbilam
Katakam ca Tuládháram Andbakárakam eva ca
13 Andhakáram Atturelim Bálavam Dvára náyakam
Mahá-nikaṭṭhikañ c'eva Pelahálam tatháparam
14 Ete aññe[9] ca so datvá bhogagáme narissaro
'Dási árámkie c'eva attaná kira ñátike
15 Tatthá dvinnam[10] nikáyánam Wiháre manda-paccaye
Dievává pi[11] ca sutvá vá bhoga-gáme bahu adá
16 Bahuná kinnu vuttena nikáyesu pi tísu pi
Adá gáma-sahassam so babuppadam hirákulam[12]
17 Anussaranto so tinnam[13] ratanánam gune[14] vare
Ekávalim gabetvána akkhamálam aká kira
18 Evam sabba-ppayogehi[15] so hu dhamma-paráyano
Sabbe tam anusikkhantá hesum dhammakará narú[16]
19 Damilo Potthakuṇṭhavho tassa kammakaro tadá
Mátambiyarham káresi padhána[17]-gharam abbhutam
20 Bukakalle Amba-vápim Jantaváyika-Cátikam
Gámam Hiṭṭbila vcṭṭhiñca tass' ádá so sadásakam
21 Kappúra-parivene ca Kurunda-pillake tathá
Mahá-rájagbare c'eva pásáde sov' akárayi
22 [18]Aññatthá dánayo gáme viháresu mahaddhano
Potthasátavhá so[20] pañño[19] (sic) viháre Jetanámake
23 Senápati rája-namam parivenam samápayi
Mahákando ca Damilo parivenam sanámakam
24 Cullapattham tathá eko Sehala-upa-rájakam
Uparájá sa karési Sanghatisso pi rájino
25 Aññesu bahavo kamsu viháre evam ádike
Tassa rañño 'nuvattantá[21] evam dhammi hi pánino
26 Pápam vá pi hi puññam vá padháno yam karoti so
Loko tam tam karot' eva tam vijáneyya pandito
27 Jeṭṭhánámá[22] mahápuññá mahesi tassa rajino
Jetthárámañ[22] ca káresi bhikkhuninam upassayam
28 Tassa 'dási ca dve game patta-pásána-bhúmiyam
Tan[23] buddho Helagámañ ca árámika satam tathá
29 Akálamayarájá pi dhátugeham mahárahaṁ
Mandalagiri-viharamhi cetiyassu mahá dhano
30 Loha-pásádake so va chádesi majjhakúṭakam

Bodhitissa-viháraṅ ca Bodhi tisso mahávaso
31 Dipe maṇḍaliká sabbe tattha tattha yathábalam
Vihâre parivene ca karuyiṃsu anappake
32 Tassa kále narindassa puññakammamavo iva
Ativitthára bhítena sabbaso na vicáritam
33 Pubbako pi tathá maggo ákulo viya bháti me
Yathá padhánam kathitam hetunam upalakkhanam
34 Ath' áparena kálena Pulatthi nagaram gato
Wásam tatth' eva kappesi karonto puñña-sañcayam
35 Atekicchiya-rogena samuṭṭho kálam attano
Maranasso viditvána samáhuya mahá janam
36 Ovaditvána dhammena maranam so upágami
Mahájano mate tasmin[27] bálha-soko parodiya
37 Katvá álâhane tassa[28] kiccam sabbam asesato
Tass' álâhana-bhasmam pi katvá bhesajjam attano
38 Evam solasame vasse rájá ási divamgato
Pettha kuṇṭhaka (sic) Damilo rajjam tassa vicárayi
39 Rája-bhandhaṅ ca tam sabbam sabbaṅ ca balavâhanam
Sammá ádáya gopetrá nagaram samupágami

Translation of the

Reign of Sangha Bodhi III. according to the Mahavamsa.

1. After the death of Hatthadatha, Agra Bodhi the eldest son of the king, also called Sri Sangha Bodhi, became king.

2. He was a righteous king, full of insight, and did innumerable acts of merit.

3. He Superintended the maintenance of the priests of the three sects, preserved the canon of scripture, and forbade slaughter.

4. He gave offices impartially, according to merit, and favored those who by birth or learning were worthy of favor.

5. Wherever he saw priests, he the highminded did them honor and asked them to say the liturgy (pirit) or talk of religion.

6. He studied under the wise virtuous and learned priest Dathasiva of Nagasala monestery.

7. And there having throughly heard the teaching of the all wise one, being perfected in religion, he became a doer of all gentle deeds.

8. Having heard a discussion between priestesses, who, (previous to their putting on the robes) were related to him, he quite turned away his favor from those who were wicked heretics.

9. He restored broken monesteries and parivenas to their former state.

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1 meyiyáni S. 2 yo S. 3 ná S 3 L ñá. 4 [eca added in S omitted in L.] 5 baña S. 6 mittánam S. 7 ṭhâne S. 8 ádá S. 9 S añe L amñe. 10 S nn. 11 Disvá pi L. 12 anirá S kula L S. 13 nn S. 14 ga L. 15 pa L. 16 n S. 17 madhâna in both corrected in S to padhâna.

18 Amña L. 19 imño L S. 20 yo omitted in S. 21 L to. 22 ṭṭha L S. 23 S ddhobbhe. 27 tassmin S. 28 taemiṃsa L. 29 siva S.

10. He restored alms fallen into abeyance, and gave slaves to the priesthood according to the necessities of each (sacred) place.

11. He made a splendid house for that priest called after his name; which having received, he the high minded one gave to the priesthood.

12. And the king gave to him villages for his maintenance, Bharattala and Kihimbila, and Kataka and Tuladhara.

13. And Andhakara and Atturoli and Balava and Dvaranayaka and Maha Nikatthika and Pelahala also.

14. These villages and others he, the lord of men gave for maintenance, and he gave servants also of those related to himself.

15. Then either seeing or hearing that monasteries of both sects were poorly provided for, he gave many villages for their maintenance.

16. But what is the use of much speaking; to the three sects he gave a thousand villages, fruitful ones and undisputed.

17. And following the three gems in the highest virtue, he took a necklace and turned it into a rosary.

18. So in every way he followed after religion; and all men taking him for their example, became doers of virtue.

19. A Tamil called Potthakuntha, who was his constant servant, made a splendid and wonderful house called Matambiya.

20. And the king gave him Ambavapi in Bukakalle, and the cloth weavers' village Catika, and the village Niṭṭhila veṭṭi with the slaves (living therein).

21. And he built as residences, the monasteries at Kappora and the places at Kurundapillaka.

22. In other places too, the wealthy one divided villages among the monasteries; and the wise general named Potthasata, added to Jeta vihara

23. A parivena called after the king's name; and Mahakanda the Tamil, a parivena of the same name.

24. And the under king Sanghatissa made a small house called Sehala-upa-rájaka for the king,

25. And in other places many people both built monasteries (of which these are only a few,) and were full of goodness, following the example of the king.

26. For when the chief does evil or good, the world does just the same: let him who is wise note this.

27. This king had a most virtuous queen called Jetthá, who built the Jetthá monastery as a home for priestesses.

28. And gave to it two villages in very stony land called Tumbuddha and Helagáma together with a hundred slaves.

29. And the king added a splendid relic house to the dagaba in Maṇḍalc-giri monastery.

30. And he roofed in the inner chamber in the Brazen Palace (at Anurádhapura). The celebrated Bodhi Tissa built Bodhi Tissa monastery.

31. And all the provincial Governors throughout the island built monasteries and parivenas not a few, according to their ability.

32. In the time of this chief of men everywhere in the island virtue alone was practiced.

33. It seems bad to me (thought the king) according to the most important sign of goodness, to have past so much time here.

34. So after a time he went to Pulastipura and there lived acquiring merit.

35. Then when he was afflicted with a severe illness, seeing that the time of his death was come, he addressed the people.

36. And exhorted them to virtue ; and so died. But the people were overcome by sorrow at his death.

37. And when his obsequies were performed nothing being left out, they took of the dust of his funeral pile and used it as medicine.

38. So in the 16th year this king went to heaven, and Potthakuntha, the Tamil, carried on the Government.

PROCEEDINGS

OF

MEETINGS OF THE CEYLON BRANCH

OF

THE ROYAL ASIATIC SOCIETY.

General Meeting, 15th June, 1871.

Captain Fyers, R.E., President, in the Chair, Messrs. Capper, Dunlop, Keppel Jones, Marsh, Herbert, MacVicar, Bartholomeuz, Skeen, De Zoysa Modliar, and Allanson Bailey (Secretary).

The proceedings of the last General Meeting were read and signed by the Chairman.

The Secretary laid on the table a copy of the Journal for 1870-71, with a copy of the Proceedings.

The following presentations since the last Meeting were announced :—

1—A Collection of Norwegian Shells, presented by the Christiana University.

2.—Journal of the Royal Asiatic Society (1866 to 1870), presented by the Society.

3.—Journal of the Bengal Asiatic Society (1870 and 1871), presented by the Society.

4.—(*a*) Annual Report of the Smithsonian Institution (1868).
(*b*) Smithsonian Contributions to Knowledge, Vol. XVI.
(*c*) Smithsonian Miscellaneous Collections, Vols. VIII. & IX.
(*d*) Monthly Report of the Dep. Special Commissioner of Revenue U. S. Three numbers.
(*e*) Journey to Musardu.
} Presented by the Smithsonian Institution.

5.—Annual report of the Commissioners of Agriculture U. S. } Presented by U. S. Agricultural Dept.

6.—The Tamil Plutarch, presented by Mr. G. C. Casie Chitty.

7.—Notices of Sanskrit MSS. No. 2, presented by Rajendralal Mittra.

8.—Memorials and Times of Dr. Quint Ondaatje, presented by Mr. M. P. J. Ordaatje.

9.—Trübner's Oriental Literary Record.

10.—Chroinque De Abonjafer Record.

11.—Quaritch's Catalogue.

The Secretary was directed to convey to the donors the thanks of the Society,

The following additions (by purchase) to the Library were also laid on the table :—

1.—Proceedings of the Geological Society (1867 to 1870).

2.—Annals and Magazine of Natural History 1865 to 1871.

On the motion of Mr. Capper it was resolved that the taxidermist should, when he could be spared, be sent out into the country to collect specimens of birds and insects, &c., and the Secretary was authorised to pay him his coach or trainfare and a reasonable daily allowance while so employed.

The following gentlemen, who were duly proposed and seconded, were elected members of the Society :—

C. Leechman, Esq.
Revd. P. Marks.
W. H. Wodehouse, Esq.
E. B. Creasy, Esq.
E. C. Pritton, Esq.
Revd. Dr. Schrader.
G. Milne, Esq.
H. A. Larkum, Esq.
E. Giles, Esq.
J. G. Smither, Esq.

The following papers were then read :—

1.—Translation from Dutch Records, by R. Van Cuylenberg, Esq., Government Record Keeper.

2.—Dondra Inscription, No. 2, by T. W. R. Davids, Esq.

3.—Food Statistics, by J. Capper, Esq.

4.—Descriptive Catalogue of Snakes in the Society's Museum, with description of a snake supposed to be new to science, by W. Ferguson, Esq.

Resolved that the papers be forwarded to the Reading Committee for their consideration.

The Secretary pointed out that no Reading Committee had been formally appointed for the present year, though he believed it was intended that the Committee of last Session should continue to act.

Resolved that the last Reading Committee be re-appoin ted

The meeting was closed with a vote of thanks to the Chairman.

(Signed) A. B. Fyers, Capt. R. E.,
President.

Committee Meeting, 14th September, 1871.

Present.---Captain Fyers, R.E., President, in the chair, R. Dawson, Esq., W. Skeen, Esq., J. Capper, Esq., L. de Zoysa, Esq., Modiliyar, Allenson Bailey, Esq., Hon. Secretary.

Read a letter from the Secretary to the Archæological Commission, forwarding an extract from a despatch from the Secretary of State for the Colonies to the Governor of Ceylon, intimating that Mr. Rost, Librarian of the India Office, would be glad to have for the Library, a complete set of the Journal of the Ceylon Branch of the Royal Asiatic Society, and copies of the various publications in Sanskrit and Pali, said to have been published in Ceylon.

Resolved, that a copy of all the numbers of the Journal now in print be forwarded to the Government for transmission to Mr. Rost ; and that he be informed that it is intended to re-publish those numbers which are out of print, and that copies of them will be presented to the Library at the India Office as soon as they are re-printed.

Resolved also that the Hon. Sec. be authorised to procure copies of any Sanskrit and Pali works that have been published in Ceylon for presentation to the India Office Library.

Mr. L. de Zoyza Modliyar undertook to collect these works.

Read a letter from Mr. H. Nevil proposing that

1.—The Society write and propose an exchange of publications with the North China Branch Royal Asiatic Society, and present that Society with our present Journal.

2.—That copies of the Society's journal be presented in future to the Geological Survey of India—and that

3.---Photographs be carefully taken on a large scale, of the skeleton whale mounted in the Museum.

Mr. Nevil stated with reference to this proposal, " Except " the cetacea, &c, taken home from Madras by Sir Walter " Elliot, and described by Dr. Gray in Trans. Zool. Society, I

" believe nothing is known of the pinnipedous mammals of " Eastern seas. A good photograph of the *skull* and *cervical* " *vetebræ* would enable scientific persons at home to identify " or describe the species which is otherwise lost to science, " though of such great interest. The whale, in question is " said, I believe, to have come on shore at Mount Levinia.'

It was resolved that Mr. Nevill's proposals be approved, and Mr. W. L. H. Skeen be requested to take the photographs required, as well as the photographs which he some time ago asked permission to take of the skeleten elephant and of other specimens in the Museum.

Considered the following proposals, submitted by Mr. W. Vincent Legge, Corresponding Secretary.

1.—" That Members contributing to the journal shall be " entitled, as in the Parent Society, to 20 copies of their paper.

2---" That instead of re-printing all the back journals that " are out of print, a Committee should be appointed to select " those articles which are of sufficient interest to warrant the " expenses of reprinting, and that these should form as many " new numbers as the material will occupy."

Resolved that the first proposal be approved, and that Mr. Legge be informed with reference to the second that the Committee consider it desirable to reprint the back journals in their entirety.

On the motion of Mr. L. de Zoyza Modliyar, it was resolved to purchase the following works for the Library :---

1.—The ancient Geography of India—Vol. 1. The Buddhist Period, by Major-General Cunningham.

2.—Maha Vira Chanta, by J. Pickford.

3.—Translation of Kusa Jataka, by T Steel, C.C.S.

4.—Theatre of the Hindus, by Prof. H. H. Wilson.

5.—The Chronicles of the Pathan Kings of Delhi, by E. Thomas.

6.—Buddhism in Thibet, (with atlas), by E. Schlagintweit.

7.---The Wheel of the Law, by H. Alabaster.

8.---A Catena of Buddhist Scriptures for the Chinese by S. Beal.

Read a letter from a member of the Society requesting, that as he lived at a distance from Colombo, he might be elected a corresponding member; read also a subsequent letter from the same member, complaining that he had received a letter telling him that he had in consequence of not having paid his subscription, ceased to be a member of the Society.

Resolved that the writer be informed that the Committee cannot recommend a compliance with his request, as corresponding members are only elected on special grounds which do not exist in this case; but that the Committee are willing to allow his name to remain on the Society's books as an ordinary member, if he at once remits his subscription for the past as well as the current year.

Resolved also that members generally he reminded that subscriptions are due in advance on the 1st January in each year.

It was agreed that a General Meeting of the Society should be held on Wednesday, 27th of September next.

A. B. Fyers, Capt. R. E.,
President.

Allanson Bailey,
Hon. Secretary.
14th March 1872.

General Meeting, 27th September, 1871.

Present.---Captain Fyers, R. E., President, in the Chair, J. Capper, Esq., W. Skeen, Esq., R. Dawson, Esq., Rev. J. Scott, H. J. MacVicar, Esq., L. de Zoyza Modliyar, Allanson Bailey, Secretary.

The minutes of the last General Meeting were read and signed by the Chairman.

The Books purchased, in accordance with a resolution passed at the last Committee Meeting, were laid on the table, as well as speciman sheets (final proof) of Childers' Pali Dictionary, presented to the Library by the Author. Resolved that Mr. Childers be thanked for his present.

The following new Members were then duly elected :—

R. VanCuylenberg Esq.,	W. G. VanDort, Esq.
G. Jayetileke, Esq., Modliyar.	P. Coomaraswamy, Esq.

A paper by W. J. S. Boake Esq., on "Parangi" (the Syphilitic disease of the Vanni district) was read by the Secretary; and Mr. L. de Zoyza, Modliyar, read a Translation of Sinhalese Proverbs (No. 2.)

The meeting terminated with a vote of thanks to the Chairman, moved by J. Capper Esq., and seconded by L. de Zoyza, Esq. Modliyar.

ALLANSON BAILEY,
Hon. Secretary.

Committee Meeting, 14th March, 1872.

Present.---Captain Fyers, R. E., President, in the Chair, C. P. Layard, Esq., J. Capper, Esq., F. M. Mackwood, Esq., H. J. MacVicar, Esq., L. de Zoyza, Modliyar, R. V. Dunlop, Esq., Treasurer, A. Bailey, Esq, Secretary.

Read correspondence with the Colonial Secretary on the subject of the journals and other publications forwarded by the

Society for presentation to the India Office Library, in pursuance of resolution passed in Committee on the 14th September, 1871. It was ordered that the correspondence be filed.

Read letters from Mr. L. Nell, D.Q.A., Galle, regarding fresh water pearls found in certain localities in the Southern Province. Mr. Layard stated that similar pearls were found in other parts of the Island. Resolved that Mr. Nell be thanked for his communication.

Read letter from the Librarian, Calcutta Public Library, asking for a complete set of the journals of the Ceylon Branch of the R. A. Society. Resolved that the journals asked for be forwarded.

The Secretary informed the meeting that he had received a letter from Mr. B. F. Hartshorne, C.C.S., in which that gentlemen stated that he proposed writing a paper on the Vedahs of Ceylon for the Society's journal; and that he had several small size photographs of them taken by Mr. Catto, Mr. Hartshorne wished to know whether the Society would undertake

1.—Either the expense of having the best of the photographs enlarged, or

2.—The expense of having a sufficient quantity of copies printed to illustrate his paper (if accepted), and to allow him say, fifty copies extra of the photographs.

The Secretary was desired to procure the plates and to have one copy printed from each to be submitted to the Committee.

Read a letter from the Taxidermist applying for an increase of salary. The application was refused.

Mr. R. V. Dunlop in resigning the Treasurership in consequence of his leaving the Island, made a brief statement of the condition of the funds of the Society, and stated that he

would forward the vouchers, &c. to the Secretary. Mr. Dunlop was thanked for his services. The election of a new Treasurer was deferred.

ALLANSON BAILEY,
Hon. Secretary.

A. B. FYERS, Capt. R. E.,
President.

Committee Meeting, 8th April, 1872.

Present.—C. P. Layard Esq., (in the chair), R. V. Dunlop. Esq., Keppel Jones, Esq., J. Capper, Esq.

The Meeting having been called for the purpose of nominating an interim Treasurer, pending the appointment of an officer by a general meeting, it was resolved that Mr. H. J. Macvicar be requested to act in that capacity ; also that he may receive and open letters during the absence of the Secretary.

A. B. FYERS, Major, R. E.
President.

General Meeting, 1st August, 1872.

Present.—Major Fyers, (in the chair), R. Dawson, Esq., L. de Soyza, Mudliyar, H. J. Macvicar, Esq.

After the proceedings of the last two committee meetings had been read and signed by the chairman, Mr. Macvicar reported that the Taxidermist during the last few months had been very negligent of his duties.

He had refused to preserve the large python which lately died in the Society's rooms : such an opportunity of adding a

really valuable specimen to the collection would have been eagerly seized by a Taxidermist having the advancement of the still very small collection in the museum at heart. He was continually absent from his duties without leave. A large number of birds sent to the Museum in the flesh had been thrown away by him as unfit for preservation, although shot on the day they were sent to him. He had also made away with 89 glass eyes left in his charge by Lieut. Legge, who wrote very strongly, stating that the Taxidermist had entirely neglected to follow his instructions.

It was resolved that the Taxidermist should be informed that his services would not be required after the current month, and that he replace the missing glass eyes. The appointment of another Taxidermist was deferred, the peon to have an increase of Rs. 2·50 monthly, unless the Secretary saw that he could not look after the articles in the museum properly, in which case he was to appoint another Taxidermist.

Mr. Macvicar having stated that he wished the accounts of the Society audited, Messrs. R. Dawson, and W. Ferguson were requested to become the auditors.

The presentations to the Museum since last committee meeting comprise the following :---

Birds, eleven by R. J. M. Drew, Esq., six by H. Cottam, Esq., nine by Lieut. Legge, (two eggs) ten by F. H. Grinlinton, Esq., forty-nine by H. J. Macvicar Esq., (eggs forty-seven.) Mr, Cottam also presented one Flying Fox, one Flying Squirrel, one small Squirrel, one Monkey skin, one Kabaragoya skin, one pair polished deer horns, four bottles snakes, four Flying fish, Mr. Macvicar, one civet-cat.

It was resolved that these gentlemen be thanked for their presentations.

The following books have been added to the library:--

(1.) Buddhism in Tibet; and a folio Atlas and sundry plates presented by Mr. MERCER.

(2.) Monthly Notices of Papers and Proceedings of the Royal Society of Tasmania for 1870, presented by the Society.

(3.) Buddhist Nirwana, presented by J. D'ALWIS, Esq.

(4.) Bengal Asiatic Society, Journal and Proceedings to July 1872.

(5.) Annals and Magazines of Natural History to July 1872.

(6.) (a) Annual Report of the Smithsonian Institution for 1869.

(b) Smithsonian Contributions to Knowledge, vol. xvii.

(c) Congressional Directory for 3rd Session of the 41st Congress of the U. S. America, presented by the Smithsonian Institution.

(d) Annual Report of the Commissioners of Agriculture U. S. 1869, presented by the Commissioners.

The date on which to hold the Anniversary Meeting was not decided, but it was arranged that the President and Secretary should fix the day.

A. B. FYERS, Major R. E.,
President.

4th October, 1872.

At a special Committee Meeting held on the 4th October, it was resolved, that a deputation of Members should wait on His Excellency the Governor, and request him to become Patron of the Society.

Thursday, October 8, 1872.

The following Members waited on the Governor this day at 3 o'clock, in order to request His Excellency to become Patron of the Society:—Major Fyers, Mr. Dawson, Mr. Capper, Mr. H. J. Macvicar, Mr. L. de Zoyza.

The Governor assented to the request, and expressed his readiness to forward the interests of the Society by any means in his power, His Excellency alluded to his intention of erecting a public museum in the Circular walk, in which provision might be made for the Society's Library and room for Committee as well as for access to the Museum by Members.

Major Fyers thanked His Excellency on behalf of the Society, and the deputation withdrawn.

A. B. Fyers, Major R. E.,
President.

25th November, 1872.

Anniversary Meeting held at the Office of the Surveyor General on Thursday, November 7, 1872.

Present.---His Excellency the Governor, Patron, in the Chair, Major Fyers, Messrs. Geo. Armitage, R. Dawson, J. Alwis, K. Jones, Koch, Coomaraswamy, J. H. Marsh, J. Capper, W. H. Herbert, E. C. Britton, W. Ferguson, A. M. Ferguson, and L. Ludovici.

The business was opened by Mr. Capper reading the Committee's report for the past year as follows :---

ANNUAL REPORT.---In submitting their Report of the proceedings of the Society, since the date of the last Anniversary Meeting, the Committee regret to state that the very favorable anticipations then formed have not been fully realized, and they are reluctantly compelled to report that owing to the changes in, and to the temporary absence of, their Office-bearers, the amount of business transacted has been very insignificant, the contributions to the Society's Journal have also been few.

On the departure of the late Treasurer for Europe, and the removal of the late Secretary to the Central Province, their duties were temporarily combined in the person of Mr. H. J. Macvicar, who undertook to carry on the joint work of the two offices until other arrangements could be made, and it will be for you now to elect from amongst your Members, Office-Bearers for the ensuing Session. Your Committee feel that it is owing to these unforseen circumstances that the past Session has been so barren of interest, and so comparatively unproductive.

The papers read have been few and comprised :---

(1) "Translation from Dutch Records,"
by R. VAN CUYLENBERG, Esq.

(2.) "Dondra Inscription, No. 2."
by J. W. RHYS DAVIDS, Esq.

(3.) "Food Statistics," by J. CAPPER, Esq.

(4.) "Descriptive Catalogue of Snakes in the Society's Museum, with description of a Snake supposed to be new to science," by W. FERGUSON Esq.

(5.) "A paper on Parangi," by Dr. BOAKE.

(6.) "Continued list of Singhalese Proverbs,"
by LOUIS DE ZOYZA, Modliyar.

Of the above papers, the "Catalogue of Snakes in the Society's Museum," has been withheld from publication.

The contributions to the several departments in the Museum comprise the following :—

A collection of Norwegian Shells, presented by the Christiana University.

Ten by F. H. Grinlinton, Esq. nine by Lieut. Legge, one by J. Capper, Esq., and 101 by H. J. Macvicar, Esq.

Fifty-four eggs have been presented : viz., two by Lieut. Legge, five by R. J. de M. Drew, Esq., and forty-seven by H. J. Macvicar, Esq.

Eight animals presented : four by H. Cottam, Esq., two by H. J. Macvicar, Esq., one by Lieut. Legge, and one by Mr. Hart, Texidermist.

(Here followed the Catalogue of works added to the Library during the year.)

The following new Members have joined the Society since the date of the last Anniversary Meeting:—C. Leechman, Esq, Rev. P. Marks, W. H. Wodehouse, Esq., E. B. Creasy, Esq., E. C. Britton, Esq., Rev. Dr. Schrader, W. G. Van Dort, Esq., G. Milne, Esq., H. A. Larkum, Esq., E. Giles, Esq., J. Smither, Esq., R. Van Cuylenberg, Esq., S. Jayetilleke, Esq., P. Coomaraswamy, Esq.

And the undermentioned gentlemen have retired during the same period—J. S. Drieberg, Esq., J. Thackwell, Esq., G. H. K. Thwaites, Esq.

The statement of the Treasurer shews a small balance in hand with arrears of subscription amounting to Rs. 1194.25. Of this sum Rs. 567.00 are due for the current year, Rs. 367.50, for 1871, and the balance for previous years.

It is matter for regret to find that a number of gentlemen who have joined the Society during the last few years have

not paid so much as their Entrance Fees, although repeatedly solicited for payment.

Proposed by Geo. Armitage, Esq., Seconded by Jas. Alwis, Esq. That the following be the Office-Bearers for the ensuing year:—

Patron.—His Excellency the Governor.

President.—Major Fyers.

Vice Presidents.—C. P. Layard, Esq., R. Dawson, Esq. .

Treasurer.—H. J. Macvicar, Esq.

Hon: Secretary. - J. Capper, Esq.

Corresponding Secretary.—Lieut. Legge, R.A.

Librarian.—L. de Soysa, Mudeliar.

Proposed by R. Dawson, Esq., Seconded by K. Jones, Esq, That the following members form the General Committee for the ensuing year:—

G. Armitage, Esq., J. d'Alwis, Esq., E. C. Briton, Esq., M. Coomaraswamy, Esq., W. Ferguson, Esq, J. Ferguson, Esq., J. J. Grinlinton, Esq., C. A. Leechman, Esq., F. M. Mackwood, Esq., J. G. Smither, Esq., Rev: J. Scott. (*Carried.*)

Major Fyers then read the following address:—

"Your Excellency and Gentlemen.—I am sorry to have to inform you that, during the past year, very few papers have been contributed to the Society, very little interest appears to have been taken in its proceedings, and many subscriptions have not been paid up. I regret to have to make this statement, as at our last Annual Meeting I anticipated a brighter future for the Society.

"I am aware that many who can aid us materially by writing on the antiquities of the Island, on its natural history, and

on other subjects of interest, prefer sending their papers to the different Societies at home, to reading them before our branch of the Asiatic Society, as they are of opinion that by doing so greater publicity is given to their writings than if they were published in our transactions. I think that those who have to pass several years of their lives in this Island ought to consider it a duty, as well as a pleasure, to endeavour to assist any local scientific society; and if those who are capable of doing so refrain from be coming members or contributing papers it is impossible that in such a small community any Society can remain in existence very long.

It is with extreme regret that I have to refer to the loss the Society sustained in March last by the death of Mr. William Skeen, Government Printer, one of our oldest and most zealous members. Mr. Skeen took a very great interest in the ancient history of the Island: and although not an Oriental scholar himself, by his great aptitute for research, he obtained the information that enabled him to publish his history of the Foot-print of Buddha on Adam's Peak, &c. Of clear understanding and unassuming manners, upright and conscientious, Mr. Skeen was most universally respected; and the numerous attendance at his funeral of all classes of the community, who were desirous to pay a last token of respect to his memory, testified the estimation in which he was held. He was a member of our Committee, and a most regular attendant at all our meetings. He was one of the principle pillars of the Society, and at all times devoted his energy and ability to endeavour to support it.

"Our active, energetic Secretary, Lieut. Legge, R. A., who worked so hard for the Society, and did so much towards resuscitating it, who had the time and the zeal, and the necessary qualifications to look after the Museum, was unfortunately ordered to Galle last year, and his successor Mr. Bailey was

some months ago appointed Fiscal of Kandy, Mr. Dunlop, our Treasurer, also went home to England; and the combined duties of Secretary and Treasurer have since been performed by Mr. Macvicar. It has long been apparent to me that our Museum could never be properly kept up on its present unsatisfactory footing. To keep a Museum in anything like good order or to make it of interest or use, a properly qualified curator must have charge of it, and a proper building must be provided for the different specimens. I am happy to say that His Excellency, the Governor, has entered warmly into the subject of providing a good Museum for Colombo. A design has already been prepared, and an estimate framed; and before many months have elapsed, I hope we may see the foundation stone of the proposed building laid in 'the Circular.'

The Museum has been carefully designed, and will contain specimens from the lowest organism to the highest vertebratœ found in the Island, also inscriptions, ancient literature, &c., &c., and a good library of scientific works.

The Asiatic Society will be given a room to meet in, and their books will be kept in separate book-cases, the keys of which will be in charge of the Society's Librarian. There will be, as there always are in similar Institutions, certain reserve days on which the public will not be admitted to the Museum, but members of the Asiatic Society will be admitted on all days.

The Museum will be a Government one, and will be in charge of a curator with special qualifications for the important appointment he will hold. I think that, with this encouragement, I may safely augur a brighter future to science in this Island as well as to the Asiatic Society. With the facilities that will be given for studying natural history, and comparing de-

scriptions with actual specimens, with a good room to read in, with separate tables to study at, with a scientific Curator, and properly arranged specimens: everyone, who can, ought to do all in his power to further the interests of science, and to support this Society, which having no Museum to keep up will be entirely devoted to papers on subjects of local interest. His Excellency the Governor has also consented to become Patron of the Society, and with the well known interest that he takes in the Arts and Sciences, we may, I am sure, look forward to our meetings being well attended, and valuable papers being read at them. And, what a field for research there is in this Island? Who can visit our ancient cities without being struck by the very interesting remains they contain, without feeling a desire to enquire into all the circumstances of their former occupation and subsequent desertion? The remains of a former teeming population are found all over what is now forest and jungle. Cities, wounderfully constructed Tanks, Irrigation Canals, are all to be seen, but the cities are deserted and in ruin; the Tanks are going rapidly to decay; the Irrigation canals are choked up or breached. The immense population which must have benefitted by these works has disappeared; the thousands of acres of land which must have formerly grown paddy, are now covered with large forest trees. There is no sign of human life except a few scattered villages occupied by miserable, ill-fed, diseased creatures.

"How very interesting it would be to trace out the rise and fall of these cities: the causes of their population having gone out altogether—so utterly, so entirely. The feeling of desolation, in the midst of these remains of a former greatness, is very great. It must be recollected that the Wijayan dynasty was founded about 543 years before the Christian Era,

that Anuradhapura was the capital, with a few intervals, from between 400 and 500 before Christ, up to about 726 after Christ: that Polonnaruwa was the capital, with a few intervals, from 729 A. D. up to the early part of the 14th century. Without going into the history of any other ruins in the Island (except the very ancient ones of Tammananuwara, the capital of Wijaya, 543 years before Christ) how much of interest and important information could be obtained from a study of all the ruins and inscription in the vicinity of Anuradhapura, Mihintale, and Polonnaruwa. And how well worth an expenditure of both time and money it would be to throughly investigate all those ruins, to clear away jungle, dig up and remove earth and lay bare, as much as possible, of what is underground. A great deal has already been done in the way of clearing some of the most interesting architectural remains at both Anuradhapura and Polonnaruwa, and very beautiful photographs of them have been taken by the late Mr. Lawton."

"I must take this opportunity of stating how much I regret the death of this very careful and excellent photographer. Mr. Lawton entered into an agreement to take photographs of the principal ruins at both the ancient cities, and visited them twice. He did not confine himself only to his own legitimate work, which consisted merely in taking photographs after the ruins had been cleared, but he looked after the coolies employed in excavating and cutting down, and I fear exposed himself more than he ought to have done. At all events, he was never fit for anything after his return from his last visit to Anuradhapura. He was recommended to try a change of air and scene to Bombay, but he returned, little, if at all, benefited by his voyage. He was then ordered to England, where he died. Mr Lawton was a throughly honest,

upright man, very hard working, and desirous at all times of doing his work efficiently and to the satisfaction of those under whom he was employed. By diligence, patience, and strict integrity he had become a first class photographer, and he was justly respected by all with whom he was associated. Had the unsparing hand of death not visited him he would, I feel confident, have made a European name for himself by the excellence of his photographs, especially of those of ruins in this Island."

"You are also well aware of the wide field there is in Ceylon for the study of Natural History, that it is unnecessary for me to enlarge on the subject, and I sincerely trust that when the Museum is built, all who have a taste for either of those important branches of science will collect and send in specimens, and do all in their power to assist the Curator in getting up a perfect collection."

"This Island was brought prominently before the scientific world in December last, in consequence of a portion of it lying in the path of the central line of the total eclipse of of the sun which took place on 12th December. It was decided that two stations should be established in Ceylon, in the line of totality—one at Jaffna, the other at Pulmoddai about 40 miles north of Trincomalee.

"The sky on the morning of the eclipse was perfectly clear, the air calm, not a ripple disturbed the surface of the water, there was not indeed at Jaffna, where I made observations of the spectrum of the Corona, the slightest breath of air. The eclipse was consequently observed under very favorable circumstancss. The reversion of the lines of the solar spectrum were distinctly observed by me just before totality, and the lines C. D. 1874 and E. during totality. I did not

observe the reversion of the lines after totality. Captain Tupman and Mr. Lewis, who had come out from England to observe the Eclipse, detected radial polarization at a considerable distance from the Moon's limb. The observation made here were corroborated by those made by other members of the Eclipse Expedition in India, and it has been clearly proved that the Corona is solar and not atmospheric to a far greater distance than was previously supposed. The valuable reports of all the different members of the Eclipse commission have not yet been published, but I hope that they will be, before many months are over.

I am happy to say that Meteorological observations have been regularly taken at all the stations established by Government; and I have supplied thermometers to a great many gentlemen in the different coffee districts, from whom I receive most regular, well-kept returns of rainfall. It will be necessary for these returns to be kept for several years before any comparison of rain-fall can be made. The number of inches which fell up-country during the last heavy floods was very great in some places. At Mocha Estate, Maskeliya, 5·20 inches fell on the 9th September, 12·18 inches on the 10th, 7·94 inches on the 14th, and 3.17 inches on the 12th; making a total of 34·02 inches in 96 hours. At Yellangowry, Dolosbage, 23·94 inches fell on the same four days, of which 8·89 inches fell on the 10th. At Templestowe, Ambagamuwa, 24·97 inches fell on the four; days, the quantity registered on the 10th being 11·75 inches. At Ratnapura 23·38 inches from between the 9th and the 12th: 9·11 inches fell at Nuwara Eliya on the 10th; 9·10 inches on the same day at Ramboda; 11·40 inches on the same day at Gingerun Oya, Kotmale. The total for the four days on this Estate was 21·90 inches. From the returns of rain-fall published by the Director of Public Works, it appears that 8·40 inches of rain fell from the 8th to the 9th September at Am-

bahpitiya ; 17·90 inches at Avisavella on the same day ; 18·80 inches at Padapolla ; and 8·05 inches at Pelmadulla; 4·70 inches at Peradeniya between the 9th and 10th September ; 8·20 inches at Pussillawa on the same day ; 12·65 inches at Nawalapitiy ; a 6·50 inches at Madulkele ; 7·30 inches at Katugastote ; 8·50 inches at Dickoya ; 7·00 inches at Dimbulla ; and 5·co inches at Kurunegala between the 8th and 9th.

I think we may assume an average of 6 inches per diem to have fallen for four days over that portion of the mountain zone which is drained by the Kelani Ganga ; but I think that 8 inches (or say ·7 foot for diem) fell on the same area in 24 hours. As according to Sir Emerson Tennent 692 square miles of the mountain zone are drained by that river it ought to have sufficient capacity and outlet area to carry off 692 by 640 by 43560 by 7 cubic feet of water in 24 hours=13,504,296,960 cubic feet, or 156,300 cubic feet per second.

The principal papers read before the Society during the past year were :—

1. One by Mr. Mudaliyar deZoyza, Chief Translator to Government, of a Rock Inscription at the Budhist Temple of Kelaniya.

2. One by Mr. Davids, on a Rock Inscription at Dondra Head.

3. One on Food Statistics, by Mr. John Capper.

4 A translation by Mr. Richard A. VanCuylenberg, Government Record Keeper, of a portion of a Memoir left by the Dutch Governor Thomas Van Rhee to his successor, Governor Gerret de Heer, 1697.

5. A list of Reptiles, by Mr. W. Ferguson.

6. Sinhalese Proverbs, by Mr. Mudaliyar de Zoyza.

The Inscription at Kelaniya, translated by Mr. de Zoysa, records an account of the repairs executed in the Temple at

that place by Prakkrama Bahu who reigned, according to Turnour, between A. D. 1505—1527, A. B. 2048—2070, at Jayawardanapura, now called Kotta, near Colombo. The King referred to is Dharma Prakkrama Bahu, the 152nd Sovereign in Turnour's List of Kings of Ceylon, during whose reign the Portuguese first landed in Ceylon and were permitted to trade. Both the Mahawansa and the Rajaratnakare entirely omit this King's reign, and only mention his brother and immediate successor Vijaya Bahu, whereas the Rajavali gives a graphic and interesting account of his reign (Turnour.) As the Rajavali bears interval evidence of being a contemporaneous record, whereas the Rajaratnakare, and the portion of the Mahawansa referring to this period are of comparatively recent origin, Mr. de Zoysa has no hesitation in giving preference as regards authority to the Rajavali. In the Dondra Inscription, No. 1, published by Mr. R. Davids in this Society's Journal, it is stated that King Vijaya Bahu ascended the throne in the year A. D. 1510, thus apparently supporting the statement made in the Mahawansa and Rajaratnakara, and contradicting that of the Rajavale, which is supported by the Kelaniya inscription. Mr. de Zoysa expresses his belief that the assumption of the Sovereignty by Dharma Prakkrama Bahu was disputed by his brother Vijaya Bahu, and that at least for a time one part of the nation, probably the inhabitants of the South) acknowledged the latter as Sovereign, whereas the remainder of the inhabitants adhered to his brother. This view appears to be supported by Mr. Turnour, who states in his Epitome: "His (Dharma Prakkrama Bahu's) reign was disturbed in the early part by the competition of his brothers whom he succeeded in reducing to submission."

One of the most important objects gained by the decipherment of rock inscriptions is the assistance they afford in the correction of dates.

Mr. de Zoysa states that as the fractional parts of a year are not generally specified with respect to the term of each reign, a progressively increasing error must necessarily accumulate from one given date to another when an opportunity is at last afforded for correcting the series of anachronisms. He considers the apparent defects in the chronology of the native historians, one of the most convincing proofs of their genuineness and authenticity, as they prove the absence of any attempt to adjust the individual or collective terms the reigns of the several kings. The Kelaniya Inscription enables us to correct Turnour's adjustment of dates by three years. According to that distinguished scholar Parakkrama Bahu ascended the throne in the year of Budhu 2048, whereas according to the inscription he commenced to reign in the year 2051.

Mr. Davids states, referring to his translation of Dondra Head Inscription, No. 2, that its chief interest lies in the simultaneous gift to Hindu and Budhist Temples, showing that, as at the present day, so in the year A. D. 1400, Budhism was corrupted with Hindu rites, and it was considered as great a merit to offer to Nila (Vishnu) as to the Veharas of Budha.

The paleographical interest, he considers, lies in the use of the old Singhalese numerals, a list of which is given in volume II., p. 73 of Prinsep's Indian Antiquities, but which have not, he believes, been noticed in any other inscription yet published.

Mr. Davids' translation of the Inscription is as follows:—

"In the 10th year of the king and our lord Siri Sanga Bo Sri Prakkrama Bahu to the Ruhunu Maha Vihare has been given a coco palm grove bought for money, and to the house where the image is 200 coco palms in trust to those who serve the king of gods: let all men preserve this inheritance and so

obtain the bliss and release in heaven ; and let those who enjoy the fruits of the trees plant young ones, and passers who collect any fruit here present the same to Nila."

Mr. Capper contributed a very interesting paper on "Food Statistics." He commenced by stating that owing to local circumstances the failure of a harvest in Ceylon means something more than dear food ; it signifies want too often bordering on starvation, from the simple fact that in nine cases out of ten, the paddy cultivator has no other occupation, possesses no means of barter, and when his crop fails he is obliged, to ward off starvation, to sell his cattle, and then his fields.

With the exception of some large cultivators, grain is not grown in Ceylon for sale, the cultivator and the consumer being one. This is proved by figures showing how stationary are the imports of rice into the Island, seasons of plenty and years of famine making no essential difference in the demand for foreign grown grain. Imported rice goes to feed the non-cultivating classes ; the chief want of irrigation works is felt by producers on their own account and for their own consumption, and it will occupy years before the wants of all these can be supplied. Mr. Capper gives returns compiled from the Blue Books of ten years from 1860 to 1869 inclusive, which shew that the annual imports of rice amounted to about four millions of bushels, but that so far from paddy cultivation increasing, the yield during the seven years ending with 1869, had never reached the yield in 1862 ; on the contrary, the average production during the last three years quoted, was no more than 6,411,475 bushels as against 8,774,737 bushels in the year 1862 ; shewing a decrease of 2,363,362 bushels with, at the same time an increasing population ; during these three years, although the production of rice was six millions, seven millions, and five millions of bushels, respectively, the imports of rice were not sensibly affected, ranging only between four millions five hundred thousand bushels, and four millions four hundred thousand.

Mr. Capper gives also a return shewing that the average yearly production of rice and the quantity of rice imported amounted to 7,972,320½ bushels. He assumes that with trifling exceptions, the imported rice is consumed, not by the rural population but by non-cultivators, such as estate coolies, those dwelling in the towns and along the settled lines of roads, chiefly Tamils, and Moors, and by Singhalese traders and artizans in the maritime provinces.

Assuming these to amount together to 600,000, making an allowance for the small proportion of children amongst estate coolies, and allowing an average consumption of five bushels per annum for each individual, we have 3,600,000 bushels of imported rice, leaving 580,000 bushels to be distributed amongst those native cultivators who are able to procure it when needed, by barter for Tobacco and Coffee. Adding this quantity of rice to the 3,792,000 bushels of Island-grown rice, we have 4,372,000 bushels for the consumption of the remaining two millions of the people, which gives an average of two bushels two seers per annum for each individual.

There is also a consumption of fine grain amongst the rural population. In the North-Western Province, the smallest yield of paddy is accompanied by the largest yield of fine grain, entirely the result of insufficient rain and want of Irrigation Works.

Having shewn that only 600,000 of the population may be taken to consume a sufficiency of food, Mr. Capper enters into a calculation to prove that the aggregate consumption of the rural population should be 9,777,000 bushels of rice instead of 4,372,000, shewing how much remains to be done by the restoration of Irrigation Works. I have referred rather fully to this paper, as the subject is one of very great importance, and deserving of careful consideration.

Mr. VanCuylenburg's paper gives a description of the different districts of the Island, of Castles, Forts, Fortresses and

Fastnesses in possesion of the Hon'ble Company in 1697, and the amount of taxes paid by each caste in the Island, and of the services required to be rendered.

Mr. Ferguson's paper on the Reptiles of Ceylon was returned to him for certain additions and alterations he wished to make in it, and as he has not yet sent it back, I am unable to refer to it.

Before concluding I wish to say a few words to those members who have not paid up their subscriptions. They must be well aware that it is impossible for a self-supporting society like this to exist without money, and unless those who belong to it pay regularly their very small annual subscription of one guinea, the society cannot publish the usual annual volume of transactions, or purchase books for the Library, or pay the salaries of the taxidermist and messenger. Now that His Excellency the Governor has become our Patron, and that we know he will take an interest in all our proceedings, I trust that the next time the Treasurer sends round, all arrears will be paid up, and I hope that those who can contribute papers will do so, and let the scientific world know that the Ceylon Branch of the Royal Asiatic Society is not entirely defunct.

His Excellency the Governor said, that he returned the members his thanks for the kindness they had shewn him in allowing him to become Patron of the Society. Nothing could afford him greater pleasure than to assist in any way in the acquisition of knowledge regarding the productions of this country, whether they be the productions of nature or of man. As he had said in his opening address to the Legislative Council, he did not believe that in any of Her Majesty's Colonies there could be found so many objects of interest for the students of ancient or natural history, as in this Island, rich in its fauna, its antiquities, and its ancient literature. Major Fyers had in his address to them, made allusion to the subject of a Museum. He (the Governor) had always looked upon Museums as the

best means of imparting instruction in the most popular and agreeable form, in which all classes and races might participate. He hoped to be able to effect something in this way, and that by its means the island might take a higher position than it has hitherto done. He hoped by means of a Museum to lead the thinking minds of the Colony into the right groove as it were, of natural history, that gentlemen resident in various parts of the island would learn to take an interest in such matters, and that even the natives seeing so much interest taken in their ancient literature and history, would come forward and supply a good deal of information which it would be in their power to afford: when they possessed a Museum, instead of a number of gentlemen in various parts of the island making their separate small collections of birds, insects, &c., they would no doubt avail themselves of the opportunity of forwarding specimens to the Curator of this establishment. A short time ago he had paid a visit to the collection of birds and other objects prepared by Mr. Whyte of Kandy, and that gentleman had assured him that from small beginnings his business as a Taxidermist, had grown to large proportions, and that he was now constantly in the receipt of objects of Natural History from gentlemen in various districts of the Central Province. He believed that in no part of the world could be found a country so full of historical remains as Ceylon. There had been men learned in the ancient history of the Island, but these might be counted on the fingers of the hand: there are natives of the country too, who have studied the subject with much industry, but there had been no systematic attempt to utilise their historical records. In the Institution which he hoped shortly to bring into existence, he trusted they would see brought together such a collection of inscriptions as should help to throw light upon the past history of the island, where at one time no doubt a highly organised state of society existed. In all European countries there was felt the deepest interest in Oriental

history and Oriental philosophy. The records of these are now to be found in most parts of the Island. He was much struck some time ago when, visiting an irrigation work in the Eastern Province, he saw an annicut being constructed with massive stones some of which had ancient inscriptions on them; he told the officer who was in charge of the work, that he thought it was a great pity to take these for such a purpose. The reply he received was that the stones wers found very near the work, and came in very handily, and it was a pity to go further for stone. He (the Governor) however, thought differently, and gave instructions that no more of such stones should be so used. A museum would be the means of preserving and utilising many monuments of the past, and that it and the Society might be of service to each other. The Society would find close at hand, objects for reference to the student or the lecturer, whilst the general public would be not only gratified by an inspection of the collection, but many might be induced to take the opportunity thus afforded, of studying the works of God and man. His Excellency concluded by expressing the pleasure it would always afford him to promote the objects of the Society, by any means in his power.

Mr. Dawson hoped that the Society was now entering upon a new and prosperous era. A Society such as theirs had many difficulties to contend with, the chief of which was the ever changing composition of the community. A few able men occasionally took an interest in their proceedings, but very soon these were removed, and then came a time of torpor for the Society. No doubt had those who held prominent positions in Society taken proper interest in such matters as His Excellency was now doing, the effect would have been good. He was certain that the sympathy evinced for them by the representative of Her Majesty would be felt from one end of the Island to the other: he had no doubt that the natives would now readily come forward to assist, and it would everywhere

be felt that His Excellency had that day done them a great public service.

Mr. Coomaraswamy followed with remarks on the growing interest taken in Europe in all that related to oriental learning, and at the same time thought that the natives of the country had done a fair share of the work before them in this direction, and hoped they would accomplish yet more.

The Governor acknowledged the vote of thanks in a suitable manner, and the business of the day was brought to an end.

List of books added to the Library during the past year.

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I. Exposition Universelle de 1855, 10 vols. presented by the Government.

II. Journal of the Royal Asiatic Society (1866 to 1870) presented by the Society.

III. Journal Bengal Asiatic Society 1870, and July 1872, presented by the Society.

IV. (*a*) Annual Report of Smithsonian Inst, 1868-69.
(*b*) Smithsonian contributions to knowledge vol. xvi and xvii.
(*c*) Do. Miscellaneous collections vol. viii and ix.
(*d*) Monthly Report of the Dep. Special Commissioner of Revenue United States 3 numbers.
(*e*) Journey to Musardee.
} Presented by the Smithsonian Institution.

V. Annual Report of Commissioners of Agriculture United States 1868-69, presented by United States Agricultural Department.

VI. The Tamil Plutarch, presented by Mr. G. C. Casie Chetty.

VII. Notices of Sanskrit MSS. No. 2, presented by Rajendralal Mitra.

VIII. Memorials and Times of Dr. Quint Ondatjie, presented by Mr. M. P. J. Ondatje.

IX. Trubner's Oriental Literary Record.

X. Chronique de Obondjafar, &c.

XI. Quaritch's Catalogue.

XII. Childer's Pali Dictionary, presented by the Author.

The following books have been purchased during the year.

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I. Proceedings *Z*oological Society (1867-70).
II. Annals and Magazine Natural History 1865, July 1872.
III. The Ancient Geography of India, vol. i, The Buddhist period—by Major General Cunningham.
IV. Maha Vira Charita by J. Pickford.
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JOURNAL

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OF THE

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1873.

PART I.

EDITED BY

THE HONORARY SECRETARY.

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ON OATH AND ORDEAL.

By Bertram Fulke Hartshorne, C. C. S.

It has been a common practice in all ages of the world to ratify a solemn agreement, and to settle any disputed question regarding a moral obligation, or a mutual contract, by means of some form of oath or ordeal. The reason of this is obvious. It is supposed that such a procedure affords a security for truthful and honest dealing; and it is curious to observe the various methods in which different races of people have set about attaining this desirable end. The Sinhalese Buddhists are in no way conspicuous for devotion to truth; but although ordinary lying is regarded by them as venial, if not commendable, they put the fullest confidence in any statement made according to one of the many forms of oath which they themselves employ, and they consider that any violation of such oath is followed by the most disastrous consequences. The story of king Chetiya, in the *Unmagga Játakaya*, is one which illustrates the Buddhist idea upon this subject. It is narrated that "at the time when the "life of man was longer than it now is, king Chetiya ruled "over Dambadiwa. His body was redolent of sandal wood, "and from his mouth proceeded the odour of the blue "lotus flower; he was endued with the superhuman power "(irdhi) of sitting cross-legged in the air. He was ever "guarded, night and day, by the four gods of the Kámáwa-"chara world. His fourfold army consisted of innumera-"ble elephants and horses, and he exercised supreme

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" royalty over Dambadiwa, which is ten thousand yoduns
" in extent (that is 130,000 miles). But in consequence
" of the lie of which such a king as this king Chetiya was
" guilty, the scent of sandal wood departed from his body,
" the lotus scent which issued from his mouth gave place to
" a foul odour, and the deities which kept guard about him
" in the four quarters of the heavens deserted him. He was
" deprived of the power of sitting cross-legged in the air,
" and so fell to the ground. Then by reason of the false-
" hood which he had uttered, the earth parted asunder,
" and his living body was enveloped, as in a red blanket,
" with flames of fire from the lowest of the infernal regions
" and he was born again in hell."

In the same way the educated and refined Greeks believed that some of the worst punishments in the infernal regions were allotted to those persons who had broken their oaths. The consequence of this crime was detailed in the answer of the Delphic oracle to Glaucus, and the story is given by Herodotus (vi, 86.) A man from Miletus had entrusted some money for safe keeping to Glaucus; after a time he died, and his heirs claimed the money by bringing the tokens, upon the production of which it had been arranged between Glaucus and the Milesian that the money was to be returned. Glaucus however denied all knowledge or recollection of the alleged transaction, and went to Delphi and asked the oracle if he should restore the money, or keep it by swearing an oath that he had never received it. The answer of the oracle was this: " Glaucus, son of Epikydes, for the pre-
" sent it is more profitable for you by swearing to succeed
" in carrying off the booty. Swear, then, for at any rate
" death awaits even the man who swears truly. But there

" is a nameless son of Oath who has neither hands nor " feet—yet he is swift in his pursuit until he seizes and " destroys the whole house and race. But the posterity " of a man whose oath is true is the better hereafter."

Upon hearing this answer Glaucus asked to be forgiven for what he had said, but the Pythian goddess replied that to tempt the god was the same thing as if he had actually carried his purpose into effect.

He then restored the deposit, but, as Juvenal says, " Reddidit ergo metu non moribus"—he gave it back through fear, not because it was his duty to do so—and he adds that the response of the oracle became literally true, for the whole family and posterity of Glaucus were utterly des royed.

The Greeks, however, commonly applauded falsehood, if it were clever and turned out to be successful; and even Plato said that the lie which the gods hated was the truthful statement of a misinformed mind.

In the time of Homer, the river Styx was considered to be the most sacred object by which either mortals or immortals could swear. It was the river, as Virgil says, " Dî cujus jurare timent et fallere numen," and a comparison was drawn by Aristotle between this idea of the Greek mythology and the theory of Thales, that water was the first principle of all things. Some very suggestive remarks were made by Hegel upon this point: " This ancient tradition," he says, " is susceptible of a speculative " interpretation. When something cannot be proved—that " is, when objective monstration fails, as, in reference to " a payment, the receipt; or, in reference to an act, the " witnesses of it;—then the oath, this certification of my- " self, must, as an object, declare that my evidence is

" absolute truth—as now, by way of confirmation, one " swears by what is best, by what is absolutely sure, and as " the god swore by the subterranean water, there seems " to be implied here this, that the essential principle of " pure thought, the innermost being, the reality in which " consciousness has its truth, is water; I declare, as it " were, this pure certainty of my own self as object, as " God."

That is to say, the basis of the oath is laid upon the essential and purest form of absolute reality. It is easy, then, to see why the many different oaths of the Siṇhalese Buddhists, who deny all such ideas as essence and reality, do not fall within the canon laid down by Hegel, and are not referable to any one distinct principle; while they are thus unlike the various forms of oath observed by people of different race and religion.

The most solemn Siṇhalese oaths are governed by no considerations of the absolute and immutable reality of their object, such as are characteristically assigned by Hegel to the essence by which truth may be demonstrated. They are various in form and arbitrary in principle. The respective weight which each carries with it is due to an estimation of the pūrely material advantage or disadvantage which, in the end, it is likely to secure, rather than to any belief in its real á *priori* efficacy. Thē worst evil which can happen to a Buddhist is the misfortune of repeated birth, and we have often heard Kandyans seriously attribute their disasters in this life to some deficiency of merit on their part in a previous state of existence.—Nirwàna is the great final cause of life, and every thing which is likely to stand in the way of attaining to Nirwana is scrupulously and conscientiously avoided. Each Bud-

dhist, then, has his own individual standard of moral excellence, and, according to his lights, he regulates his conduct, by that which he considers best calculated to promote his ultimate welfare. At Pantura, in the Déwálé, is a colossal image of Vishnu bedizened with the thank-offerings of many Buddhists, who by an inconsistent anomaly, regard it with great reverence; the oath held most sacred by the people of the neighbourhood is taken by laying the hand upon the image.

It is frequently resorted to in cases of disputed civil claims, and even if a convert from Buddhism sues a Buddhist for a debt, he will usually be content to be non-suited if the defendant will go through the customary formality of thus swearing by Vishnu that he is not liable.

In the Kandyan country there is a great variety in the forms of solemn oath.

The Bana book, the සතිපට්ඨාන සූත්‍රය *Sati patthána Sutraya*, is sworn upon, as in the low country. Salt, fire, paddy or the මැව්, ma wi, the හලඹ, Halamba, or tinkling armlets of devil dancers, කපු, Kapu, or the cotton used for spinning, and the blacksmith's forge, are each in their turn the chosen objects to which the Kandyans appeal in truth of their assertions. The peculiar efficacy of the forge is said to consist in its manifestly powerful character, while each of the others is selected for the solemnity on account of the relative degree of excellence attributed to it by its simple-minded votaries.

Perhaps the most obligatory of all oaths is taken by a Sinhalese man when he swears by laying his hand on the head of his eldest son. His belief being that any falsehood uttered under such circumstances will involve the ruin and destruction of his whole family and posterity.

His father mother and sister as well as his gurunanse or teacher are invoked in testimony of the truth; and he is ready if necessary to swear by the sun. But he ignores the beautiful passage in Romeo and Juliet:—

Romeo.—Lady by yonder blessed moon I swear.
That tips with silver all these fruit-tree tops.
Juliet.—O swear not by the moon, the inconstant moon,
That monthly changes in her circled orb,
Lest that thy love prove likewise variable.
Romeo.—What shall I swear by?
Juliet.— Do not swear at all;
Or, if thou wilt, swear by thy gracious self,
Which is the god of my idolatry,
And I'll believe thee.

Act 2, Scene II.

For an oath taken by the moon is in this country by no means a mere sentimental formula.

The so-called tooth of Buddha enshrined in the Dalada Máligáwa at Kandy is an object of profound reverence, and an oath taken thereby is supposed to carry with it an obligation proportionate to the general veneration paid to the relic, whilst one of their most important oaths is taken by the head of Buddha.

We learn from Herodotus, that the most sacred oath of the ancient Scythians, was sworn by the king's hearth. It was an oath which had a peculiar significance and effect —whenever the king fell ill, he sent for three of his soothsayers, and inquired the reason of his malady. They invariably said that it was because some one had sworn falsely by the king's hearth. The person whom they accused was sent for, and charged with thus being the author of the king's sickness, and he, of course, protested his innocence. Thereupon other soothsayers were called in; and if they agreed with the opinion of those first consulted, the perjurer was put to death, and his property divided

amongst those who had originally accused him; but if there was a difference of opinion among the soothsayers, a large number were summoned, and the truth determined by a majority of votes. In case the verdict went in favor of the accused, the persons by whom he was first charged were put to death, with certain formalities, the prospect of which must have imparted a feeling of great uneasiness to the discharge of the function of divination. Whether the result of the inquiry affected the king's health in any way it is not recorded. The Scythian method of swearing to a treaty was attended with a ceremony which is not, we believe, without a parallel among other barbarous nations of later date. It is thus described by Herodotus: "They pour wine into a large earthenware bowl and mix "therewith the blood of the parties who are entering into "the treaty, by striking a part of the body with an awl or "or cutting it with a sword. They then dip into the "bowl a scimitar, and arrows, and an axe, and a javelin. "After this they recite their solemn vows at length, and "then the contracting parties themselves and the most "worthy of their followers drink off the libation."

Herodotus says that without doubt the Scythians were masters of Asia for twenty-eight years, and we have heard it alleged that there is ground for the belief that some remnant of that ancient race found their way to the South of India. It is more probable that the course which they took lay in quite the opposite direction. At any rate we look in vain for any trace in Ceylon of the customs or traditions of that people. It would, however, be interesting to know if among any class of the inhabitants of this Island such indications may be observed. It is to be remembered that this is a country where special

rites and ceremonies have been perpetuated unimpaired through countless generations, and that a custom 2,400 years old would be by no means a marvel of antiquity.

The celebrated Bo-tree at Anurádhapura has a recorded and well-authenticated history extending over 2000 years, and, as may be supposed, at that place an oath taken by it is considered to be a most binding obligation on a Buddhist to speak the truth.

In the neighbourhood of Minnériya there is a proverb "මින්නේරියේ පනම් තියන්න" Minnériyé panam tiyanda--referring to the custom of taking a solemn oath by laying a silver fanam upon a sacred rock by the side of the lake. The rock or slab upon which the coin is deposited was formerly part of the bund or embankment. It seems to have been thought, in some way or other, to be indued with a peculiar holiness, and it was removed about half a mile from its original position, and a Déwála built near it. The oath is taken in presence of the Kapurála ; and it seems to be an essential part of the ceremony that the money should first be deposited.

In the same way a relic has been recently discovered in the Morowak Kóralé, and it is turned to a similar devout, and at the same time profitable, purpose. Both these relics, however, have a real and very remarkable characteristic. It is reported that they positively guarantee that a man who swears by them speaks the truth; whereas in a court of justice it is too well known that as a general rule no such result can be looked for.

There are few localities regarded with more universal reverence in Ceylon than Kataragama. The legends connected with Kandaswàmiy, the tutelary deity of the place,

are surrounded with much interesting and extravagant tradition of a purely oriental type, and this probably constitutes the chief reason why the annual pilgrimage to his chief temple is so largely attended by people of various nations and creeds.

A shrine in honour of the deity is to be seen in the branch dewale or temple at Kandy, and a civil claim was recently decided there between two chetties in the following manner. The plaintiff sued the defendant for £5 15s 0d. for board and lodging. By mutual agreement they repaired to the temple where the defendant lighted a candle, and holding it before the shrine declared that he did not owe the money. He then extinguished the light, and the plaintiff with apparent cheerfulness subsequently withdrew his claim and paid the costs of his adversary.

There is, however, a case mentioned by Sir Charles Marshall (Judgments p. 142) in which a similar ordeal at Jaffna does not seem to have been attended with infallible result. He says: "a Judge of one of the northern districts "suggested to the Supreme Court the expediency of "sending the Malabar witnesses to a temple, to be sworn; "in the hope that the more imposing nature of the "ceremony, being one to which the Malabars sometimes "have recourse among themselves, might be more "efficacious in obtaining the truth. After a full consider- "ation of the question, however, by all three Judges, they "directed the District Judge to be informed that they "should not feel justified in sanctioning the course pro- "posed---that though they were fully aware of the diffi- "culty of arriving at the truth, and though they agreed "that this object might sometimes be attained by the

" method proposed, still it would often fail as had been " shewn by former experience. That a striking instance " of such failure occurred about the year 1816, when the " witnesses in some criminal case of importance, having " been sworn in the temple of Kandaswamy near Jaffna, " as being reputed a temple of peculiar sanctity, the whole " of the witnesses on one side or the other were afterwards " found to have perjured themselves; and that the " practice was afterwards discontinued by the Supreme " Court from a conviction of its inefficiency."

The same learned writer also relates an interesting circumstance regarding the method whereby an oath was said to be usually taken by a Rhodiya. It is interesting because, as we believe, it has now fallen entirely into disuse; it formed one of those peculiar social distinctions which are so rapidly disappearing in Ceylon, and which make it so necessary that the ethnological characteristics of the people should be carefully observed and accurately recorded. "A question," he writes, "arose in 1834 " whether a witness of the Rhodiyan caste, who was ex- " amined in the Court of one of the Southern Districts, " ought to prostrate himself on the occasion of taking the " oath, which was represented to be the ceremony pre- " scribed by custom for persons of that class. The King's " Advocate, to whom the matter was referred, and who " was naturally startled at a mode of taking an oath, so " revolting to English customs and feelings, and so un- " usual even in Ceylon, consulted the then Chief Justice " on the subject." The opinion of Sir Charles Marshall was given thus: " Such distinctions unquestionably do ,, exist, and are observed, almost necessarily, I believe,

"in the Courts. In the Northern Districts, the low caste "Malabars, instead of swallowing the Ganges water, take "off one of their cloths, and step over it as the mode of "imprecation. I never heard of this ceremony of pros- "tration, nor indeed do I ever remember a witness of the "Rhodiyan caste, being examined before me." At the present time a Rhodiya comes into court and gives his evidence after the usual form of affirmation in the same way as any other witness. This form of affirmation is repeated by every witness who is not a Christian and renders him liable, in case of falsehood, to the consequences of perjury. It's moral value, however, must be admitted to be almost infinitessimal. About forty years ago a system was adopted whereby Buddhist Priests or Kapuralas, and Moorish Priests were employed in some of the Courts to administer oaths to witnesses in accordance with the rites of their respective religions. But either in consequence of the failure of this plan to secure veracity, or from some *odium theologicum*, it was soon afterwards abandoned.

Cordiner mentions (vol. I. 262) a somewhat similar ceremony which we believe is now wholly obsolete: "one "day while the Supreme Court of Judicature was sitting at "Batticaloa, I had an opportunity of seeing the ceremony of "administering an oath to a Ceylon Brahmin. The "sacred book, written on palm leaves, lies on a small "oblong table, carefully wrapped up, bound round with "a long cord, and covered over with several folds of "coloured muslin. The table has six turned legs and is "placed upon the head of a young boy, behind whom an "older Brahmin stands, holding the two legs of the table "which are nearest to him, one in each hand; afterwards

" it is laid upon the floor, the covers taken off, and the " volume displayed. The officiating Brahmin repeats the " nature of the obligation, and pours a little water into " the hand of the person who swears, which he shakes " and sprinkles on his head: then, bowing down, he " touches the book with his hands, repeating the prescrib- " ed words, and rising up, the ceremony is finished."

Two ancient forms of ordeal remain to be mentioned which we frequently find alluded to in old Kandyan deeds. They seem now to have quite gone out of use; the one was the ordeal of thrusting the hand into boiling oil and cow dung, the particular merit or significance of which it is hard to see. It was specially resorted to in cases of disputed title to land. The other was the ordeal of putting the hand into a chatty, wherein a live cobra had been placed. This is thoroughly intelligible. It was a form of ordeal which no doubt commanded genuine belief, not only on account of the risk of personal injury involved in the process, but also by reason of the belief which invested this snake with infallible and sacred attributes.

Note on *Prionochilus Vincens*,* Sclater, (Legge's Flower-Pecker) by W. V. LEGGE, F. Z. S.

(Read Feb., 3d. 1873.)

Dimensions.—Male, total length 4·15 in.; wing 2·3; tail 1·2; tarsus ·5; middle toe with claw ·5; hind toe 0·25; bill to gape 0·45.

Description.—Iris reddish brown; bill black, lower mandible light at base; legs and feet blackish brown. Head, face, hind neck, upper surface, with lesser wing coverts and margins of greater wing covert and tertiary feathers dull steel blue, palest on the rump (which in some specimens has the feathers edged whitish) and with the frontal feathers dark centred; wings blackish brown with the basal portion of inner webs and under wing coverts white; tail black with a white terminal spot, mostly on the inner webs of the four outer feathers and decreasing towards the innermost; chin, throat and chest white changing on the breast and under surface to primrose yellow; flanks dusky, under tail coverts white, washed with yellow.

Female, length 4 in.; wing 22·25; tail 1·1. The female is throughout lighter and duller in plumage than the male.

Bill and iris as in that sex; legs and feet lighter in hue. Head and hind neck faded bluish ashen; back dusky olivaceous; wing coverts margined with the same; wings lighter brown than in the male; uppertail coverts

* This bird has already been described in the Proc. L. Z. Society this year, but as it is quite unknown to any member of our Institution I subjoin the above description.

pervaded with dark grey; sides of neck and chest ashy, the white of throat being less clearly defined; the yellow of under surface less bright and less in extent, the brown of the flanks encroaching more on it.

History of Species.---I had the good fortune to discover this curious little bird in the Southern Province, on the 13th of March last. The genus to which it belongs was totally new to me and as it did not occur in India, I was, from want of books of reference on malayan Avifauna, unable, when describing it, to give it a name, and I therefore transmitted specimens together with my notes, to the Zoological Society of London, at a meeting of which in the 18th of June last, the species was submitted, and named by the Secretary, Dr. P. L. Sclater, *Prionochilus Vincens*. The existence in Ceylon of this genus of the Dicœinœ is most remarkable; it is a malayan type unknown as yet in India, and has for its nearest ally a bird of the same genus, discovered by Wallace in the Molluccas islands. How then are we to account for the occurrence of a species so far from the haunts of the rest of its family? It would seem to indicate, at some very remote period, the existence of a connection between our island and the Malay archipelago, in support of which theory, from an ornithological point of view, I may mention the recent discovery in the hills at N. Elliya of a whistling thrush *(*Myiophonus*) belonging to a malayan section of its family.

The distribution of our little bird will doubtless be found to be very local, and I question whether further re-

* *Arrenga Blighi*, Holdsworth, named after its discoverer, Mr. S. Bligh of Kandy.

search will extend its range beyond the limits I now assign to it. It was discovered in one of the primary forests of the Gangebodde Pattoo, not far from Galle, and afterwards traced by me through the Hinedoom Pattoo to the Lion King Forest (*Singha Raja Avidea*), on the southern borders of the Kookool Korle, where I procured it at an elevation of about 2500 feet above the sea level. It is therefore, like most of our forest-loving birds (the limits of whose distribution, by the way, have been very erroneously fixed) both a low country and hill species. The district lying to the North of the valley which divides the central mountain group from the Southern ranges, or, in other words, the region extending from Ratnapoora to the Hapootella slopes has been searched by naturalists and collectors without meeting with this bird, and therefore it may be concluded that it is confined to the hills of the South-west of the Island, ranging from perhaps the Eastern side of the Morowa Korle through the "Lion King" and other forests bordering the Gindurah, and from thence through the extensive jungles of the Gangebodde pattoo to the Kottowe district where I first met with it. Should these limits prove to be correct, the habitat of this little bird is exceedingly confined and has no parallel in Ceylon with the exception perhaps, of the White-fronted Starling, (*Temenuchus Senex*) which has only been found as yet, in the forest along the upper part of the Gindurah, indeed in just the same locality as the subject of this note.

This Flower-pecker dwells exclusively in the high jungle or "Mookalaney" of the Sinhalese, and effects the leaves and smaller branches of moderately sized trees, but

more particularly the luxurious creeper, *(Freycinetia angustifolia)*, which grows so plentifully in the Southern forests round the trunks of tall trees, entwining and clothing them completely until they have the appearance of columns of ivy. It associates in small flocks and when this plant is in fruit, may be seen in little parties, feeding on its seeds. Its movements are most active, now hovering for an instant over a flower, like other members of its family, now clinging "tit-like" to the under side of some chosen leaf. I have but once observed it in the open and that was in a forest clearing where it was searching the flowers of the "Bowitteyā" plant, *(Osbeckia virgata.)* Although it usually takes but short flights from tree to tree in the jungle, its powers of locomotion are considerable and it may be seen wending its way across openings in the forest from one belt to another.

The note of this little denizen of the woods is a weak "*tse-tse-tse*" scarcely audible on a stormy day amidst the sighing of the mind in the trees and is generally uttered in concert when searching for its food in small flocks.

I know nothing as yet of its incubation, but it would appear to breed in the South-west monsoon at different dates according to the locality it inhabits; individuals procured in the low-country forests in June had the sexual organs developed, and those killed in the Singha Rajah forest in August were in a similar condition.

The Sports and Games of the Singhalese, by LEOPOLD LUDOVICI.

(Read Feb., 3d. 1873.)

If the Sports and Games of a people like their popular Songs and Ballads, may be supposed to serve as an index of character, the favorite pastimes of the Singhalese but too faithfully reflect the tame and undemonstrative nature of the national temperament. Inhabiting a climate which renders exertion of any kind distasteful, the Singhalese in common with all inter-tropical races, indulge in exercise for exercise's sake, but to a very small extent. Hence it is hardly matter for surprise that their games and sports should be cast after the tamest and soberest of patterns. In venturing on this remark the writer does not mean to convey the impression that the Singhalese as a race, are incapable of much sustained physical exertion; on the contrary, any one who has seen a Singhalese peasant at work in his Paddy field or Chena, under a burning hot sun, will allow that, provide him with the motive for labour, he can rise superior to the disadvantages of climate. But this motive, it will be conceded cannot operate where amusement or pastime is the only object. His work done, the inducement for further exertion ceases, and rest and repose under the cool and refreshing shade of a tree, are his highest enjoyment. To expect therefore, a people so circumstanced to take delight in violent out-door sports, would be to look for an exhibition of physical energy alike incompatible with their natural instincts, and inconsistent with those climatic conditions which forbid superfluous exertion. Nevertheless,

that the Singhalese should in spite of an enervating climate, still count among their field games at least, one demanding nearly as much violent exercise as Cricket, is sufficient proof that when the inducement is present, the Singhalese youth is as capable of exertion and endurance as his more favored brother of a colder climate. While, however, the climate may be considered the principal cause which tends to make the Singhalese an ease-loving people, it must not be forgotten that there are others which conduce to the same end. Among these latter may be mentioned the entire absence, till very lately, of any thing like a spirit of emulation, in consequence of the equally entire absence of a system of school organization, that recognized the importance of the play ground. They have no public schools, colleges, or universities, the youth of one institution competing among themselves or with those of another, for the laurel crown or palm of victory. Under their own Native Sovereigns, and centuries before the Portuguese secured their first foot-hold on the shores of Lanka, every district and every province had its public school and its college, but these institutions were, as a rule, under the supervision and control of the priesthood—staid sober old dons who would have as much tolerated any manifestations of spirit, pluck, or mischief, as the violation of any of the "five precepts." It necessarily followed that under such a system of scholastic discipline, the alumni of these colleges could indulge in no kind of exercise more violent than the composition of learned essays on the recondite subject of the Buddhist metempsychosis, or the less elevating if more tiresome task of manufacturing diagram poetry. The later Kings,

whatever may have been the extent of their acquirements in the arts and sciences, set but little store on the physical development of muscle and sinew, and though they may occasionally condescend to go out a hawking, or to treat themselves and their Court to the spectacle of a cock-pit, or a bull, or rather buffaloe fight, the gymnasium was an institution as utterly unknown to their Majesties of Kandy as it was to their predecessors of Anurajepoora and Polannaruwe. After the sceptre of Lanka had departed from the Royal line who had wielded it for more than twenty-two centuries* and the Malabar dynasty succeeded to the throne of Kandy, whatever of spirit the nation had possessed was utterly crushed out, while the maritime provinces which had passed under the iron rule of the Portuguese and the Dutch, were so completely denationalized, that it is only within the last quarter of a century that the natives of this island have begun to realize under the benignant sway of Britain, the high privileges of British subjects. Enjoying as they now do, the blessings of civil and religious liberty in a degree to which many of the oldest States of civilized Europe have hardly attained, the national character of the Singhalese is being silently but surely moulded into habits of independence and self reliance; while every step made in advance, draws closer those ties of loyalty to the British throne, for which they are so eminently distinguished. The impulse given towards progress, moral, social, and material, by the example of the ruling race, may take many years to fructify, and though even some of the vices of European civilization may

* Sovereigns of the "Great Dynasty" reigned from B. C. 543 to A. D. 302; those of the "Lower Dynasty" from A. D. 802 to 1706.

leave their taint on the national character, the good will yet so far counterbalance the evil, that, with the generous influences already at work, with the agency of a higher and nobler education in operation, and the principles of a purer Religion permeating the masses, the day if distant, will yet dawn when every village will have its school-house and its own play-ground, and the village green resound with the chants and merriment of a future generation of Singhalese Youths assembled in the generous rivalry of those athletic sports, which if they had ever existed at all, have very nearly died out, or re-echo to the sound of bat and ball when cricket shall have displaced their own "*Buhu Kellya*". Then, if there is any truth in the saying, "The child is father of the man", shall the Singhalese Youth begin to give promise of a more vigorous manhood than can be predicated of the present generation. But to return from this digression.

The Sports and Games of the Singhalese may be classed under four heads. 1st Religious Games, 2nd Out-door sports, 3rd Games of skill, and 4th Games of chance. It may however, be necessary to mention here that, with but a few exceptions, all the games and sports of the Singhalese appear to have been borrowed from India, and even from the Portuguese, the Dutch, and the English.

Among the Religious Games the first is the *Ang-Ediema* (අංගැදීම) or the "Pulling of horns," the idea of the *merry-thought* of European superstition developed on a gigantic scale. It is not a game in celebration of a victory, nor in commemoration of any great national event, like the games of classic Greece and Rome, but rather in

propitation of some offended diety; and whether sickness has visited the people, murrain attacked the cattle, insects and grubs settled on the young rice fields, or a protracted drought threatened calamity to man and beast, the alarmed Singhalese peasant knows of no more efficacious remedy than an appeal to *Vishnu* or *Siva*, *Pattiny deyo*, *Kateregam deyo*, or *Basnaire deyo*, through the medium of an *Ang-Ediema*. The village elders, as soon as they awake to a sense of the impending danger, wait in solemn deputation on the *Kapurale* or priest of the district *Kowile* or temple, carrying presents with them for the seer, very much after the manner of Saul when he waited on Samuel, to learn the name of the particular deity that ought to be appeased, and generally to concert measures for the due and proper celebration of the Games. The *Kapuralle* promises to obtain the desired information, but as this must be done at a lucky hour, on an auspicious day, and after sundry ablutions and purifications, he dismisses his visitors with a promise to communicate with them on a subsequent day. He next proceeds to consult the Oracle, and fixes upon a day for the celebration of the Game, taking care however, that it should be sufficiently removed to allow of the real crisis of the danger to be passed. The day fixed upon is communicated to the elders who invite the villagers interested, by distribution of betel leaves; and preparations for the celebration commence in earnest. The villagers next divide into two parties or teams, the upper and the lower. This distinction is merely topographical, the villages lying towards the head of a valley or stream being the upper, and those further down being the lower. Each party next chooses its Captain or Cham-

pion, who brings with him the stout branch of an elk horn with the frontlet stang on. This horn is held in proportionate veneration according to the number of victories it may have achieved, and there are some handed down from father to son—for the championship is hereditary—that have come

"O'er a' the ills o' life victorious,"

for a hundred years. The place appropriated for the game is called the *Angpitya*, an open place, in some central situation, and generally under the shade of an overspreading Bo tree, thus making the tree sacred to Buddha participate in a purely Hindoo ceremony. At one end of the *Angpitya*

"Stands there a stump six feet high, the ruins of a tree,
"Yet unrotted by rain and tempests' force."

The stump selected is generally that of a cocoanut tree put loosely into a deep hole, with the root end up; and is called the *Henekande* or thunderbolt. A hole large enough for a man's arm to pass, is cut or burnt through this upper end. The respective teams are now ready with stout ropes made of buffaloe hide and strong jungle creepers, when the Kapurale opens the game, proclaiming like Pelides at the funeral pyre of Patroclus.

"Come ye that list this prize to win, and ye this bout decide."

The men of the upper team now pass a stout buffaloe-hide rope through the hole in the *Henekande* and firmly make fast to its end the elk horn of their champion. The horn of the lower team is similarly got ready and tied to the nearest tree; the Henekande is now leaned forward and the two champions hook the horns one into

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* The Iliad. Merivale's translation. Book XXIII.

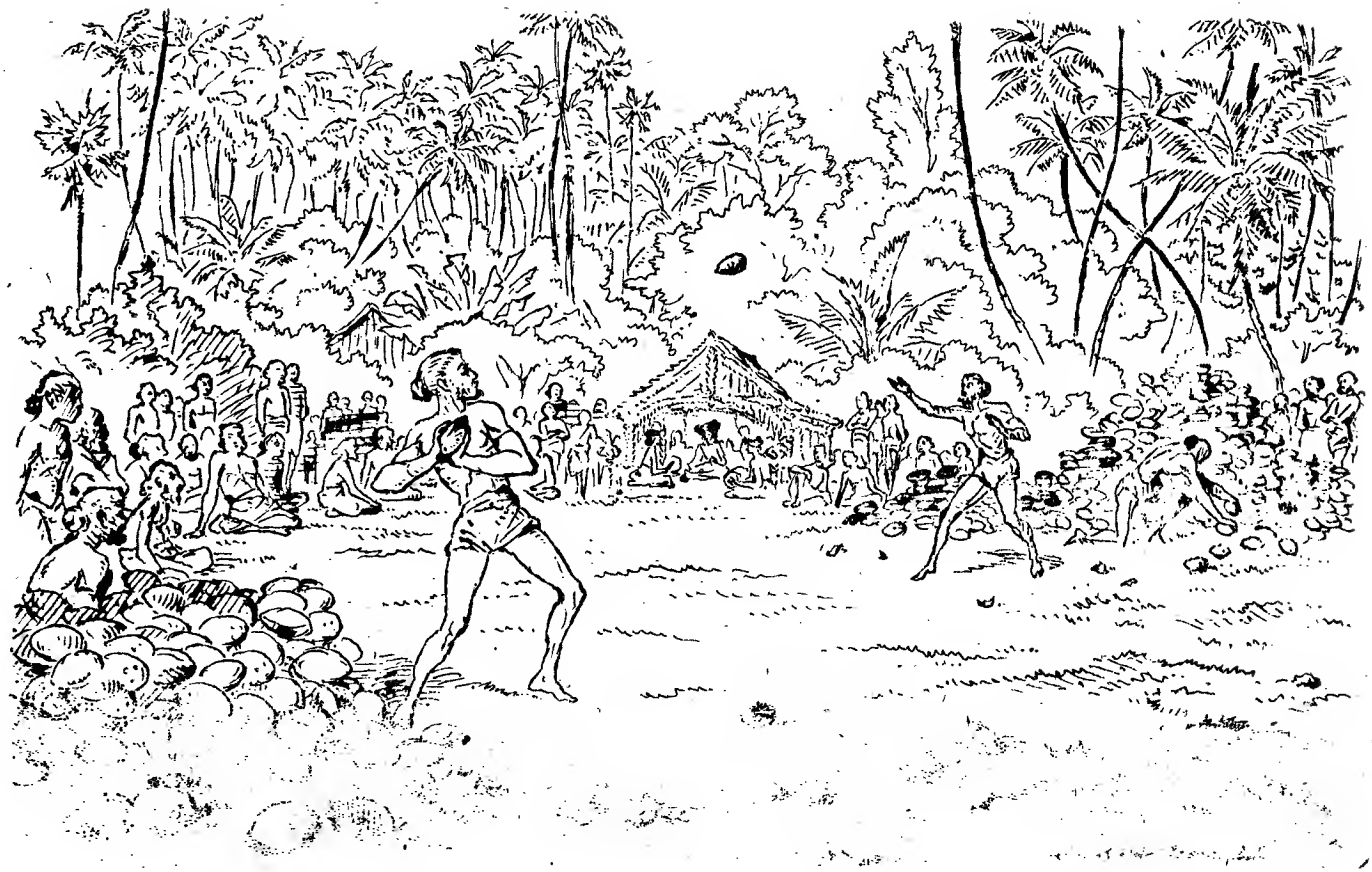
But what is curious about this stump is, that in the Singhalese Game it is always from a tree struck by lightning.

the other, and lash them together with cords. The two champions grasp the horns in their hands to prevent their turning or slipping, and the word is given to pull. Both teams now unite and haul at the rope passed through the *Henekande*, while some half a dozen men of both parties lay hold of the *Henekande* and sway it up and down, as the rope in the hands of the pullers is tightened or relaxed. The two champions hold on to the horns like grim death, and are swayed hither and thither with every motion of the rope. The contest lasts for hours, the snapping of a rope only serving to prolong it with a fresh splice, until one of the horns yields, and the pullers go rolling and sprawling on the ground.* All the time the mighty tug has been going on, the *Kapurale* is engaged at a small booth constructed of white olahs under the Bo tree, chanting the sacred hymns appropriate to the occasion, jingling the *Halemba* or consecrated armlets, and burning incense to the accompaniment of Tom-tom, fife, and cymbal. After the contest has been decided the whole assembly go in procession through the villages that participated in the ceremony, the *Kapurale* leading with a chant, the champion carrying the victorious horn in a basket on his hand, and every one joining in the *Hoyia* chorus at the proper stops. By the time the procession returns to the ground, a feast consisting of rice boiled in Cocoanut milk, vegetable curries (for flesh of any kind is forbidden) *tire* and honey is laid out on green plantain

* In this as well as in the striking of cocoanuts, it is considered a bad omen should the horn, or cocoanut of the upper team break. Such an accident is looked upon as the consequence of the continued displeasure of the offended deity. Hence it is not unusual to concede the victory, to the upper team by opposing a weaker horn.

leaves. The feasting over, they all rise at a sign from the Kapurale, and give one united shout of *Hoyia*, and then disperse. The *Kapuṛale* receives the customary presents, and the victorious elk horn is again laid up in lavender—if a liberal sprinkling of oil of resin may be so called, until some other threatened danger brings it out.

Another religious game also got up under similar circumstances as the one already described, is called *Polgehume* (පොල්ගෙහුම) or striking of cocoanuts. The villagers who join in the game divide into upper and lower teams, and after selecting each its Captain, proceed to the usual place of meeting, each individual carrying a number of husked cocoanuts. A line is then measured off generally, about thirty feet, and stations marked at each end for the Captains. The *Kapurale* commences his invocations, rosin burnt, tom-toms beaten and Cymbals struck, and the Captain of the upper team gives the challenge by pitching a cocoanut at his opponent, who stands ready to meet it with another held in his hand. The great art in throwing the cocoanut is to send it straight, and with the stalk or eyed end foremost, as that being the hardest part of the shell is better calculated to resist the impact against the one held in the opponent's hand. Should the cocoanut thrown be broken, the sender repeats the throw until the cocoanut held in his antagonist's hand is broken when he becomes the thrower in turn. This game goes on until some hundreds of cocoanuts are smashed on either side and the stock of one party is exhausted, when the other is declared winner. The cocoanuts used, are called *Porepol* or "fighting cocoanuts" and are chosen for the extreme thickness of their shells, which



in some cases have been known to exceed a quarter of an inch, and as much as 15 Rupees have been paid for a single nut of this kind from well-known favorite trees. While the game is going on, the broken nuts are gathered, and rasped down and boiled into oil for lighting the ground during the banquet, which, as in the previous game, takes place on the return of the procession through the villages. The feasting over, the assembled people disperse after the prescribed *Hoyia*.

It is the belief of the Singhalese peasantry that both these games "are very efficacious" in expelling sickness and pestilence, and even in bringing down rain; and the popular faith is not a little confirmed by the astute *Kapurale* fixing the games at the tail end of an epidemic, or when unmistakable indications of a change of weather inspire him with sufficient confidence in his own powers of forecasting the future. In conclusion, it may be remarked, that both these games appear to have been introduced from India, probably with the accession of the Malabar Princes to the throne of Kandy.

Among the out-door sports of the Singhalese, *Buhukelya* (බුහුකෙළිය) or throwing the ball, takes rank first, both on account of the enthusiasm with which it is played, and the skill and energy it calls forth. It is also perhaps, the only purely indigenous Singhalese game. It is usually played just before and immediately after the Singhalese New Year, and the season of festivity and enjoyment extends over a fortnight in prosperous years. The play ground is an open place, where the boys, and not unfrequently the young men, of the village assemble, and after choosing

Captains, divide into two teams, each under its own leader. The players on either side count the same number and the innings is decided by mutual consent, or tossing up a brick or a pebble. When the parties have ranged themselves on either side, two cocoanut shells with the husks on, are placed on end three or four inches apart, with a piece of stick on them forming a bridge. This may be considered the wicket. The ball used is an unripe *Pommelow* rendered soft and elastic by being put under hot ashes, and protected against the rough usage it has to encounter by a closely plaited envelope of strips of bark. The in players who hold the ball, now retire to an agreed upon distance, usually about twenty or thirty yards, while of the other team some take their stand behind the bridge or wicket, and others disperse themselves over the ground as fielders. The game commences with the captain of the first team bowling, his object being to knock over the bridge while that of the other party is to catch the ball as it bounds along past the wicket. If the bowler knocks the bridge over, one of the opposite team goes out, while if the ball is caught, the bowler goes out. The ball must be caught while it is on the bound, at least above the height of the knee. The ball, whether caught or not, having passed into the ground of the second team, one of them becomes the bowler, and the game goes on alternating between the two sides, until one team has all gone out, and the game is won by the other still on the ground. The winners celebrate their victory with song and joke, quip and crank, jeer and jibe, and in the unbounded license of their exultation, show nothing like consideration for the feelings of their vanquished opponents. The apparent spirit of vindictivness,

Fig: 1. Bowling

Fig: 2. Punishment

the almost malicious delight with which the usual old songs are sung, or new ones improvised by the Captain of the winners, and the perfect stoicism and callous indifference with which the humiliation of defeat and the degradation of his position are submitted to by the loser, is the most remarkable, though certainly the least attractive, feature of this game, and can hardly fail to merit the unqualified condemnation of men whose ideas of victory are associated with generosity towards a fallen foe. The songs alluded to, not unusually degenerate into coarse ribaldry and filthy obscenity, but how cruelly humiliating soever they may be, the victim of defeat has to sit on the bridge of cocoanut shells, which in this case has becomes a veritable bridge of sighs, his head bowed down on his knees, and submit with patient resignation to the sneers and jibes of the victors, who, while they dance round him in savage exultation, emphasize a more than ordinarily biting sarcasm with a knock on his head.

The following specimens of comparatively mild vituperation, may serve to convey an idea of the wild latitude of abuse, which the winners feel privileged to exercise.

Hurrah ! hurrah ! we have won, hurrah !
Hurrah ! hurrah ! exult over this fellow
Fellows ! let us give him a name, call him *Rakossa*
Fellows let us give him a name, call him *Uguduwa.*
Fetch the conquering hero and seat him on his head,
Knock him on the head one, two, three and drive him away,
His head is hollow, crows have hatched their young there,
His mouth is foul, he has eaten *Amu* and *madu* leaves
From the Dolowewe Tom-tom-beater's garden
Did he not once steal cocoanuts,

And did he not and his fellows get a thrashing ?
There is no evil in his head from this day
(accompaniment of knocks)
There is no trusting earth and water, you dog !
Were your antecedents known, not even *Olyas* would beg of you
One after another we are come to-day to sing,
Go, go, hence away. you vagabond dog.*

Another game, a favorite with small boys is *Kally Kelya* resembling very much the Tip-cat of the English play ground—that it was however, not borrowed from the English, is tolerably certain from the fact of its having been known long before the British period. Any number may play this game, but the sides must be numerically of the same strength. The implements of the game are a stick about eighteen inches long, called the " striker" and a smaller piece of about three or four inches like the " cat " in the English game of Tip-cat". A small hole sloping down at one end of about three inches by one, is made in the ground, near which one of the in-players takes his stand. A line the length of the tallest boy from feet to tip of fingers, is then marked off on the further side, where a boy of the opposite side takes his stand with the " cat " in his hand. He cries out " play " and on being answered " ready ", throws the " cat ", trying to put it in the hole. The boy with the " striker" watches his opportunity to strike, which if he succeeds in doing, the distance to which the " cat" may have been carried,

* Calculated as these taunts are to exasperate the loosing party, they have seldom led to quarrels and fights. Indeed the writer has been assured that they never created " bad blood"—an assurance which he however regrets to state was contradicted by disclosures made at the Matura Criminal Session for 1871, when the provocation to a murder was traced to this game of *Buhukelya.*

is measured with the "striker," ten, fifteen or any number of lengths previously agreed upon counting for game, and throwing out a player on the other side. Should the "cat" drop into the hole, or within one length of the striker, or be caught when struck, the in-player goes out and the player who had the "cat" succeeds him. After one whole set of players have been outed, the winners enforce a penalty in the following manner: the "striker" is thrown about six feet away from the hole, and struck with the cat, the loser tries to catch the cat and if he succeeds he escapes the penalty, if not the player takes up the striker and going up to where the "cat" may be, throws the striker from him as before, and strikes it. This goes on until he fails to hit the "striker", or it falling within reach of the loser (who must take it up stretched on the ground) is taken up by him. From this point the loser has to run back holding his breath and crying "goodo", "goodo", "goodo", to the hole where the game commenced. Should he give in, the throwing of the "striker" and the striking with the cat, is resumed from that place.*

Ettan Kally (එත්තංකැලි) which is exactly the same as the "Tip-cat" of the English play ground, is played with a striker" eighteen inches long, and a "cat" or piece of wood four inches long and pointed at each end; a hole as in the previous game, is the starting point, and the "cat" being laid lengthwise in the hole, the projecting

* I have looked in vain into all the "Boys' Own Books" available for an English game bearing any resemblance to this. Mr. Robert Dawson tells me that he saw it played in the North of England by some Norwegian boys, exactly in the same manner as above described.

end is tipped with the striker, and as it leaps up is struck away to a distance. The distance from the hole is then measured with the striker and the cat again tipped and struck until the agreed upon score or number of lengths is made, when the winner exacts the same penalty as in the previous game. Should the cat be caught when struck, or fall within a distance that can be reached by the loser lying stretched on the ground on his stomach, with his feet on the point last attained by the player, the player goes out, but he is entitled to exact so much of the penalty as remains due between that point and the hole.

Walekadju. "Cashew-nut hole" is a favorite game with boys when cashews are in season. It is played very much in the same way as "Tip shares" or "Handers."* A hole about three or four inches wide, and as many deep, is made in the ground, and an offing seven or eight feet away is marked. The players then retire to three times that distance, and quoit a *batta* towards the hole. The player that gets into the hole or nearest to it has the right to begin, the others following in the order of proximity. The order of succession being thus determined, the boy who has the right to begin takes up the cashew nuts in the hole and from the offing station, pitches them back into the hole. Should an even number get in, he takes them all, but should it be odd, one cashew is thrown to him by the next player, and he has to pitch it back into the hole, which if he succeeds in doing, he takes all in the hole, but failing is out. Should he have holed an even

* See Routledge and Son's "Every Boy's Book," p. 65.

number, or succeeded in putting back the odd one, the next player calls upon him to strike with his *batta* any cashew he points out on the ground. If he succeeds in this he has won the game, but if in striking he holes his *batta*, or strikes any other cashew nut than the one pointed out, he goes out and is succeeded by the next player. This game is also played with "*Battas*", "*Kumburuetta*", and sometimes also with "copper challies."

Walenameya (වළනමෙය) or nine holes, is played with the bean called *Kumburuetta*,* any number may play it. Nine holes in three rows of three each, about six inches apart are made in the ground, and bounded on three sides by banks of earth, or pieces of stick, each player puts into a hole as many beans as there are players. An offing or boundary fifteen or twenty feet away, is marked off, from which each player bowls or rather shoots a bean into the holes. Should this bean fall into the centre hole, the player is winner and takes the beans in all the holes, should it fall into any other hole he takes only the beans in that hole. Should a player send his bean into a hole already emptied he forfeits the original number, which must be put back into that hole.

Kundubatu (කුඳුබටු) played with the bean *Pusbatu*.† is a favorite game with smaller boys, and takes very much the same place in the Singhalese play ground which marbles do in the English. The beans selected are round small ones, artificially flattened by the application of heat and pressure. Two holes about fifteen feet apart,

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* *Guliandina bonduc.*
† *Entada pursaetha.*

are made in the ground, and a fair-way smoothed between them in a straight line. The players now take their stand, and shoot their *Battas* into the opposite hole. The shooting is performed by holding the *Batta* between the fingers of the left hand, resting the thumb of the right on the ground, and using the middle finger of the right as a spring. The player who succeeds in holing his *Batta* goes out as winner, while the others continue the play, the player furthest from the hole taking precedence. He shoots at the nearest *Batta* on the ground, gathers them all up and putting all but two into the hole, places one at its edge and with the other shoots at it. The owner of this *Batta* then shoots at the nearest *Batta*, and should he strike one and get into the hole, he goes out as winner; but should he only strike, he is entitled to play upon all the others gradually lessening the circle until he can himself get into the hole, when he stands out. The others then go on repeating the play, the one nearest the hole beginning, until only one is left, who is the loser, and has to hop on one leg from one hole to the other. The number of times he has to hop for each defeat is determined, by the first player placing a *batta* at one hole and shooting at it from the other, and if he succeeds in hitting he exacts seven runs, should the second player also succeed in hitting a *Batta* in the same manner, he is entitled to fourteen runs, and so on, increasing by as many sevens as there are winners.

Ira Batu (ඉරබතු) or Line "*Battu*". This is played very much in the same manner as the *Kundubattu*, the difference being that, instead of holes, a circle of about six inches is drawn on the ground, with a line through the

centre. From a boundary or offing thirty feet away, the players shoot for innings, the nearest the centre of the circle taking precedence, and the others following in the order of proximity. The *batta* of the last is placed upright in the centre of the circle, and the first player shoots at it from the outside of the circle, and then at the nearest on the ground, and so on until he can come back into the circle, after having scattered the other players far apart. If he succeed in this he retires the winner. The other players continue the game in the order of their innings, until one is left last, who, as the loser, has to pay the same forfeit as in the previous game.

Among the games recently taken to by the Singhalese and generally played in the towns, may be mentioned Hop Scotch,* Prisoner's base, and marbles which are all played on the same rules as the English games.

Among the games of skill or rather scientific games, though the Singhalese may have in ancient times had a knowledge of Chess, they have not even a popular name for it now, it being known to the learned only by its Sanscrit name of *Chaturange*. Games, however, much on the same principle as draughts are not uncommon, and while the *Hatdiviyan* or "Seven Leopards" may be taken as the simplest, the *Kotu Ellime* or "Taking of the Castles" may be considered the most eloborate. The former is played with seven pieces representing the leopards, and one representing the tiger. The moves are made in a triangular diagram with one perpendicular line in the middle

* Mr. Jas. d' Alwis tells me that he has seen this or a game very much like it, described in an ancient Pali Buddhistical work. It is now known among Singhalese boys by the names of *Masop* and *Tatto* indifferently, but both these terms would seem to be of Tamil origin.

and two cross lines at right angles to it. † The player or the tiger lays down his piece first, and as the apex of the triangle is the most advantageous, chooses that. The other player then lays down a piece when the tiger makes a move. Until all the seven pieces are laid, there is very little chance, if skilfully played, of taking a piece or checking the tiger. When all the pieces are laid, the moves go on with greater deliberation until either the tiger is checked, or the greater number of leopards being taken, all hopes of checking the former is lost; when the game ends.

The "Taking of the Castles" is played exactly the same as draughts, each player taking one diagonal half of the board, which is a square with a reversed triangle in the middle of each side, and forty-nine intersections‡ in all. The counters are of different colors, generally coffee beans and Indian corn seeds. Each player lays down his twenty-four pieces, covering all the points and intersections with the exception of the middle one. The first move made into this point is a sacrifice, for the piece is immediately taken by his opponent, and so the game proceeds until one party is entirely checked or has all his pieces taken.

Niranchy§ which is the same as "Nine men's morrice", is a very common game, played by both young and old, in the intervals of business. The game is won when a player succeeds in laying down three pieces in a line, while the object of the opponent is to prevent this by giving check. Should the game not have been decided by the time one of the players has laid down his twelve men, the game proceeds by moves.

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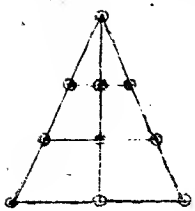
† See Diagram A.
‡ See Diagram B.
§ See Diagram C.

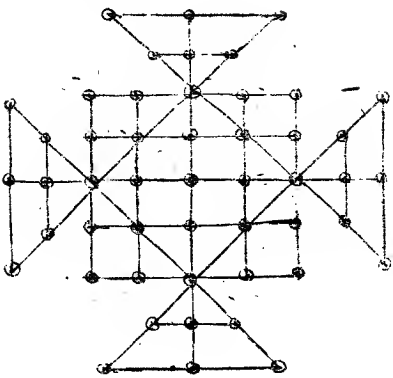
A

Hât-liviyan.

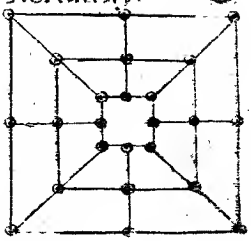


B

Kottù-ëtiumè.

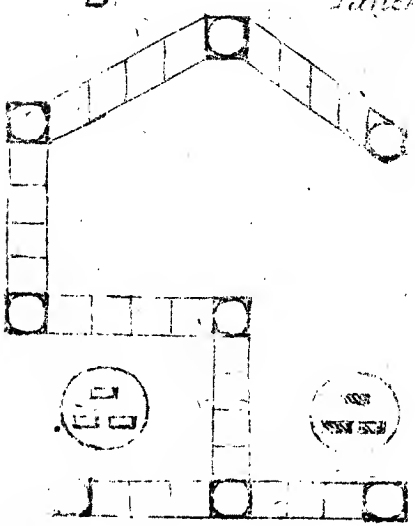


Xeranchy. C



D

Panchè



Lithe at the S. G. Office London.

J. J. H. Vanderl. fecit.

A very favorite game among the women, played with cowries, is called *Panchy*, and from the Tamil terms employed would seem to have been introduced from the Malabar Coast. Any number may play, but they must divide equally into two sides. The right to begin is decided by one taking up the cowries, which are six in number, and calling out odd or even when the cowries are thrown down, and if an even number turns up the evens have it, and if odd then the odds. The progress of the game is marked by counters called "dogs," three on each side, on a diagram.* The first player takes up the cowries and shaking them in the hand throws them down. Should all six turn up on their backs which is called "Panchy by six", or five, "Panchy by five," or one, called the "ace," the player has won his innings and is in the game, and has the right to move and score. If the throw was what for convenience we would call a sixer, the player places one counter in the third house counting from his side of the bottom horizontal row. A player throwing a sixer, fiver, or ace repeats the throw until three, four or two or a blank turns up. A blank is when all the six cowries fall on their face and counts nothing. After the first sixer, fiver, or ace, has been made the twos, threes, and fours count. The players on each side play alternately. So long as the play is on the first horizontal bar of the diagram, no taking of an opponent is allowed, nor could a piece at the corner houses or last house be taken. When one player throws the same number as that of a house already occupied, the latter is taken. A piece once taken can only re-enter the board at the first

* See Diagram D.

house. The game is won by the party whose pieces by regular progression, go out of the board at the last house. The loosers are bound to give the winners a treat called *merende*. The cowries used in the game are usually loaded. When a piece gets into the thirtieth house it is in the same danger as the ninth hole in whist, and can only go out by the throw of an ace, or fiver, or sixer, and not unfrequently the player who has got thus far, is outstripped by the other who may have recommenced from the first.

Another favorite game with women, especially young girls is called *Pettikittan*. It is played with Cashew nuts, or more commonly small stones or pebbles, six or seven to each player being the usual number. Any number of players can join in the game. Each player shakes up his pebbles in the hollow of his right hand, and throws them up, gently trying to keep them as much together as possible, and are caught as they descend on the back of the hand, The player who so catches all, or most of the stones has the right to begin, the others following in order according to the number they have caught. Should two have the same number, the tie is decided by throwing again. After the order of the player has been thus settled, the first player gathers up all the stones and throws them up as before, catching as many as she can on the back of her hand, but if it happen to be too many she may drop some of them. She next throws these up again and if she catch them all, she takes one stone towards game. The next thing is to throw up one stone, pick up one or more on the ground, and catch the stone thrown up as it comes down. If in this manner she succeeds in clearing the ground she counts another stone towards

game, and begins a-fresh. If when she throws up the stones and catches them on the back of her hand, it be only one, any player may strike it off, and she is out. Should she also in picking up the stones on the ground, touch a stone and fail to pick it up, or leave only one stone the last on the ground, or fail to catch the stone thrown up, she is out. When the play is over, the winners are entitled to give the losers as many raps as there were stones won.

Irrata Kelya. This game is usually played with "Iekels" (pieces of the mid-rib of the cocoanut leaf about 4 inches long) of which each player has from six to twelve, as agreed upon. The order of play is decided as in the previous game, each player tossing up her "Iekels," in a bundle and catching them on the back of her hand. This settled, the player that has the right to begin, gathers up all the "Iekels," and shaking them in her hand drops them on the ground in a heap, and with a hook also of "Iekel," of which each player is provided with one, proceeds to remove them Iekel by Iekel at a time, taking care not to disturb or shake those in the heap, which if she does she is out, and the play passes to the next in order. The players who at the end of the game have taken more "Iekels" than what they brought to the game, are winners by so many, and claim the agreed-upon penalty. A game very much like this called "Spelicans" is described in "Every Boy's Book" published by Routledge & Sons.

Madinchy or Ottey Irattey, "Odd or Even"; this is also a common and favorite game among women during the Cashew season. A number of women sit in a circle on the ground each with a heap of cashew nuts beside her. One

player takes up a number of cashews in her hand and holding them close covered cries *Ottey Irattey*. If the next player guesses *odd* or *even* right, she wins the cashew nuts held in the other's hand, if wrong she loses and has to pay that number to the winner, and the play proceeds in regular order. Sometimes a whole heap of cashew nuts is staked, the player who guesses right taking all, or paying back a similar number if she guesses wrong.

Among the games of chance, cards and dice occupy but too lamentably a conspicuous place. All the games played with cards are of European origin, the commonest being "*Thirty one*" played on nearly the same rules as "*Vingt-un*". Another very common game is called "*Ajuda*" (Portuguese for *help*,) and was probably borrowed from them, or perhaps introduced and popularised by the Dutch, judging from the names of the cards themselves. The ace is called *Asya* (*aas*) the king *Heera* (*heer*). The Queen, *Porowe* (*Vrouw*) and the Jack, *Booruwa*, (*Boor*) all Dutch terms. Four, five, or six can play. Each player has eight cards dealt him and if the person entitled to begin is flush, and can count upon making five or more tricks by himself, he calls out *Solo*, meaning that he elects to dispense with *Juda* and play alone. He names trumps. The other players in such a case are opposed to him and make common cause among themselves. Should he have any doubts of success, he calls out for "*Juda*" which any player having two or more aces, or one ace and two kings supported by smaller cards of the same suit, is bound to give. Between the two they are expected to make five tricks. The player next to the right of the dealer leads and is entitled to call out *Solo* or *Juda* first, the other players taking precedence

TOYS

according to deal. The deal is from right to left. Should the first player call out *Solo* and another player also have "*Solo*" consisting of a sequence of *Spades*, that player has the preference. Should a player playing *Solo*, or two players by *Juda*, make only four tricks, it is called a *Rapoor*; should they make only three it is called a *Kudjito*. In *Rapoor* the stakes are not paid immediately, but go to the winners of the next hand; in *kudjito*, they are paid at once. The first *rapoor* pays seven, and should the same player be *rapoor* in the succeeding hand which is called a "double rapoor" he pays fourteen, should he become *rapoor* a third time he pays twenty-one and the game ends; should he become *kudjito* over one *rapoor* he pays fourteen, over two, twenty-one when also the game ends. A *kudjito* pays only seven. If it be a *rapoor* or *kudjito* by *juda*, the person giving *juda* pays only one, if he had made two tricks, if not he pays three, and the other four.

Of toys the Singhalese have hardly any.

The Top, at least the Peg Top, they owe to their European masters, though the name *Bambere*, a purely Singhalese word, would seem to point to a native origin. The Humming top called the *andana* (crying) *bambere* is made of the wood-apple emptied of its core through a hole in the side. Two holes opposite each other at top and bottom are next made and a peg five or six inches long is fastened through them, the upper end of the peg protruding an inch or so out to which any little ornament may be attached. A string is next wound round the peg from bottom to top, and the end passed through a small hole in a piece of wood called the "key." The Top is spun by holding this "key" firmly against the peg, and steadily pulling the string out.

The *Natchambowe* or Pea-shooter may be said to be a very ancient Singhalese toy, and considering the universality of the Bamboo throughout the Island, it could hardly fail to suggest the idea of the pea-shooter. A straight joint of bamboo and clay pellets complete the aparatus.

The *Epele towakkowe* or Pop-gun also no doubt suggested by the bamboo, is also a very ancient and very common toy. A joint of bamboo eight or ten inches long, has a rammer, shorter by the size of one pellet,with a handle fixed to it. The pellet used is the fruit of the *epela* or *kirilla* tree or the flower of the Jamboo. The pellets should fit the bore tight, to make a loud pop.

Roongpetta, answering in every respect to the English "Cut water," is made out of the flat circular piece of cocoanut shell with its edge notched like a saw, and two small holes about an inch part in the middle. A string is passed through these holes and the two ends tied together, and to set in motion, the double string has to be alternately pulled and slackened.

The Bow of which several varieties are known to the Singhalese though it once held a high place in the Royal armoury, now only takes rank with the toys. The *Galdonne*, from which small pebbles or pellets of dried clay are shot is the favourite. It is made of some tough elastic wood and has a double string passing over two small cross pieces let into the ends, At the middle of the strings there is a small lacing of cords in which the pebble or pellet is placed, The bow is held in the left hand, and the string with the pellet pulled back with the right with a slight side twist to prevent the pellet when shot, catching the bow or

other hand of the shooter, which not uncommonly happens with the inexperienced.

The *Yaturu dunne* or Cross-bow is another variety. The bow is passed through a stock which has a trigger attached to it, a groove is made along the middle to wards the top, for the arrow, or pellet that may be used. The bow after being bent, the string is caught in the trigger, and the arrow laid on the groove against the string is discharged by pulling the trigger. Instead of the groove along the stock, a bamboo with two slits on each side for the string is used. In this case the bamboo acts like a gun barrel and greater accuracy of aim obtained.

The *Watura wedille* or Water gun is a squirt made of a straight bamboo joint with one or more small holes at the closed end, a ramrod with some tow or cloth tightly wrapped round at one end acting like the piston of a pump.

"*Borupaa*," "False-feet" or Stilts, though no doubt known to the Singhalese from very ancient times, are not in common use, except on occasions of religious processions, when numbers of boys and even grown up men can be seen performing wonderful feats of locomotion on them.

"The Sling", *Galpatya*, though sometimes used does not appear to have been known to the Singhalese in its character of a weapon. Perhaps the first time they gained an idea of the Sling was when reading the account of the encounter between David and Goliah, a supposition not a little strengthened by the name "*Galpatya*," a modern compound word into which the word "Sling" has been rendered by the Translators of the Bible.

Note.—Almost all the games described in this paper are common to the Southern Province.

On Miracles, by J. D'Alwis, M. R. A. S.

The truth or error of a novel religious system is a matter of such perplexing uncertainty, that the inquiring mind is never inclined to accept new doctrines without a sign of 'miraculous power' on the part of the propounder. "Except ye see signs and wonders, ye will not believe," said a great Teacher. Indeed there never was a teacher of a new religion, from whom his hearers did not claim the performance of *Miracles* as an evidence of truth. Moses complained that the children of Israel did not believe him, nor hearken unto his voice, until he gave them a 'sign' by the performance of miracles. So when Gotama proclaimed his supremacy by exclaiming settho h'amasmi lokassa 'I am the greatest in the world'—it is probable that the people sought for a 'sign,' especially as the Tirthakas, who arose in opposition, exhibited powers which seemed supernatural. Indeed it is stated that Kevatta suggested to Gotama the necessity of working miracles to satisfy the incredulous.* The Kevatta Sutta, which we give at length in the Appendix, leads us to the belief that the supremacy which he claimed was regarded by Gotama solely in a moral and intellectual point of view.

* It is indeed recorded that Gotama, anticipating this desire on the part of the people, explained, in his first discourse, that his supremacy consisted in his achievement of supernatural knowledge. See explanation in the Vinaya, quoted in the Descriptive Catalogue, vol. ii, p. 6.

More of this hereafter. In the meantime, it may be inquired if Gotama possessed the power of working miracles?

The possession of such a power is, as we shall explain opposed to the first principles of Buddhism. "None of the miracles with which the old histories are filled," says Renan, "took place under scientific conditions. Observation, which has never once been falsified, teaches us that miracles never happen but in times and countries in which they are believed, and before persons disposed to believe them. No miracle ever occurred in the presence of men capable of testing its miraculous character. Neither common people nor men of the world are able to do this. It requires great precautions and long habits of scientific research. In our days, have we not seen almost all respectable people dupes of the grossest frauds, or of puerile illusions? Marvellous facts, attested by the whole population of small towns, have, thanks to a severer scrutiny, been exploded.* If it is proved that no contemporary miracle will bear inquiry, is it not probable that the miracles of the past, which have all been performed in popular gatherings, would equally present their share of illusion, if it were possible to criticise them in detail? It is not, then, in the name of this or that philosophy, but in the name of universal experience, that we banish miracles from history. We do not say, 'Miracles are impossible.' We say 'up to this time a miracle has never been proved."

Miracles, like many other matters of History and Physiology, may not admit of positive proof,and may there-

* "See the Gazette des Tribunaux, 10th September and 11th November, 1851, 28th May, 1857"—*Renan's Life of Jesus*, p. 29.

fore be generally open to doubt; but there is one matter which the instincts of our nature prompt us, even without proof, to accept as a positive fact—and that is, the existence of an absolute almighty Creator of the universe; and this belief unquestionably enables us to say positively, that Miracles are possible with a Being possessed of almighty power. Miracles, therefore, presuppose the existence of an Almighty Being, or an omnipotent power. They are either His act, or that of His accredited agent.

Now, it is quite clear that Buddhism acknowledges no such Being, nor the possession in any human being of a miraculous power, in the sense of an ability to work a supernatural act, proceeding from the mere order or wish of the performer, and affecting any other being. If Buddha and his sanctified disciples had, as it is stated, possessed iddhi, they could have, in seasons of famine, converted stones into rice; and they would have had no occasion to go a begging. But we are expressly told, that, although he fasted for forty days during his profound meditation, Gotama required, at the expiration of that period, to satisfy the cravings of hunger; and the requisite food was not created by him, but was given to him by some itinerant merchants. So likewise Buddha had no power to perform any other act by which he could miraculously contribute to his own personal comfort. Where, however, such an act was indispensable, the intervention of the gods is expressly stated.

We certainly read of wonderful acts slightly affecting other people than the party performing them, (vide post); but they are such as come within the category of cases expressly stated by Gotama in the Kevaṭṭa Sutta, in

which he describes the different kinds of iddhipatihariya. They are not such as may be pronounced to be altogether impossible, nor such as may not be explained by the presence of other causes than an inherent power of iddhi in the worker. But this at least is certain, that the possession of such a power cannot be reconciled with the doctrine of Buddhism, which declares a man to be a free agent, uncontrolled by any power except that of his own *kamma*. According to this doctrine, we find Gotama quite incapable of doing aught directly, and of his own power, for the temporal or spiritual benefit of his fellow beings. It is indeed expressly admitted, that Buddha could not save a being who was destined to hell. He could not vivify the body from which the spark of life had fled.* We read of no miraculous healing of the sick. In the age of Gotama, the people, including his disciples, suffered more from sickness than from other causes. The Vinaya exhibits the precautions taken by the priests in cases of sickness, and the attentions paid to the sick priests even by the Sovereign. The four paccayà included 'medicines.' Nearly every rule was relaxed in favor of the sick. But there is not a single instance on record where disease was healed by Gotama by any superhuman power. True it is that he visited the sick, *e. g.* Kassapa, who was greviously ill in his cave. But he did not bid him, "Rise, take up thy bowl, and walk." The patient was not healed by touching "the hem of his garment." He preached to him on the Sattabhojjanga;—Contemplation, Ascertainment of the truth, Perseverance, Contentment,

* See Attanagaluvansa, p. clxiv.

Placidity, Tranquility, and Equanimity. He soothed his mind. He reduced the pain of the body by promoting, what modern medical treatment does not ignore, cheerfulness in the mind.

So, when priests suffered from the attacks of beings denominated Yakkhas, he did not drive them away. They were not expelled by his command. But he averted the danger by ordinary, legitimate, *human* means. He appealed to their own chief, Vesavanna. The latter, loyal to Gotama, and willing to redress the grievance, required a 'sign' to distinguish the true from the false ascetics of the age. That sign was furnished by the recital of the Attanatiya Sutta; and Gotama saved the afflicted, not by any iddhi, but by procuring an edict of the Yakkha-king, prohibiting the evil, and imposing a penalty for a breach of the command.*

Again, when the Vijjians suffered from drought, pestilence and famine, and the crimes consequent thereon, the alleviation of the general misery was not, as is supposed, owing to the recital of the Paritta, or Exorcism or the sprinkling of holy water by A'nanda; but the same may be traced to natural causes. For, even whilst Gotama was traversing eight miles to reach the afflicted city, the unfavorable weather had already commenced to change. Rain fell in abundance, purifying and cooling the atmosphere, clearing the country and removing the maladies which in times like the one under notice were usually attributed to demoniac influences. By-and-by, too, when the sage had repaired to Vesali, and the people had

* See Attanagaluvansa, p. cxlvii.

congregated together from different parts, their presence alone was a sufficient check to the evil-disposed; and we may easily believe that the latter either abandoned their mal-practices, or 'fled away' from a place where they could not any longer carry on their thievish propensities with impunity; and that the precautions, in a sanitary point of view, which the people were enabled to take, restored peace and health to their households.

Buddha, moreover, could not delegate his miraculous power. 'Every one for himself', seems to have been his motto. 'Self is the lord of self; who else could be the lord?'—was his undoubted doctrine.* Neither he nor any of his eminent disciples could ever set aside natural laws, so as thereby to affect another party. If, for instance, we read of Buddha, as of Abarus the Hyperborean, that he traversed on foot a large sheet of water,† we know for certainty that he could not by his command cause others to do the same. Though, like the Magicians of Egypt, Pilindavaccha was able to convert one substance into another, he could not cause 'the little girl' to do what he did,—'change a coil of rushes into a gold ornament.' A careful examination of all the wondrous deeds recorded in the Tepitaka,—indeed the very exemplification of them in the Kevatta Sutta given below, clearly proves them to have been myths, dumb-shows, or optical delusions.

Buddha it seems, clearly saw the impropriety of such frauds; and though it would not enter into the plan of a

* Dhammapada.
† Maha Vagga in the Vinaya Pitaka.

propagator of a new Religion expressly to disclaim the possession of iddhi; yet we have Gotama's own authority, as to two facts—1st, that 'all miraculous acts which he could work might be easily performed by Vijja or Magic; and 2nd, that he abhorred, refrained from, and censured the working of Miracles;' vide Kevatta Sutta in the Appendix. So much did he set his face against it, that he not only considered the mere fraudulent representation of the possession of iddhi, or a super-human miraculous power, to amount to an offence as grave as murder, but he visited the offender with the same punishment that he assigned to that offence, and expelled him for ever from the priesthood.*

It may also be readily believed that the peculiarly practical mind of Gotama did not fail to perceive that, in the state of society in which he lived, and which was by no means inferior in the possession of Arts and Sciences,† to that in which the Magicians of Egypt practised wonders,—the working of 'miracles' led to no practical benefit. When therefore Moggallana, with an overweening confidence in his own prodigious capacity for working miracles, wishing to relieve the distress of his fellow-pupils consequent upon a terrible famine,—asked his Master's permission—not to convert stones into food, but to overturn the upper stratum of this globe so as to get at what is called its honied-substratum, the answer was simply—'Don't.' The fact, too, involved in the question by

* See Vinaya Pitaka, lib. 1.

† Arrian in his History of Alexander's Expedition, speaking of the Indians, says: 'They [Brahmans?] are the only *diviners* throughout all India; neither are any suffered to practise the art of *divination* except themselves, vol. ii. p. 204.

Gotama—'what would in that case become of the denizens of the earth'?—divests the proposed work of all miraculous power: and though it is stated that Moggallána replied, 'that he would collect all the inhabitants of the earth into one of his hands, whilst with the other he would turn the earth over,' Gotama knew perfectly well, that he had no such power. For, if he had, Gotama's common-sense, of which his doctrines show he was not deficient, must have not only shewn that Sáriputta might have produced rice out of stones, but that the same mighty power, which could be exerted to turn the earth over, would enable him to save living beings from distress. And that such was Gotama's opinion is pretty clearly implied in the reply with which this part of the dialogue concludes, and which the narrator in his innocence records—'Don't; it will cause much distress to the people.' It is then reasonable to believe that Gotama not only abstained himself from working miracles, and forbade others to do so; but did not believe in any supernatural power.

Buddhists may, however, refer us to an Admonition in the Vinaya,* or to the beginning of the Kevaṭṭa Sutta, and tell us that the prohibition was confined to exhibitions 'before the laity clad in white.' The concluding words of the Sutta, viz., 'I abhor, refrain from, and censure miracles'—are certainly not open to such a construction. The words which we have quoted are not controlled by the words quoted against us. The absence here of the repetitions generally used in the Bauddha discourses, raises a suspicion in our minds, and renders it necessary

* We are obliged to omit the notes, and quotations for want of the necessary type.

to examine the genuineness of the qualifying words which only occur in the beginning of the Sutta. Miracles are intended, as Kevatta himself says, to infuse feelings of greater attachment into the minds of the people generally —not of the converted, but of the non-converted to Buddhism. House-holders too must have formed, and they did form, a far numerous body than Ascetics; and the Dhama was not, like the Vedas, designed for a privileged class. It was the property of all without distinction. The most earnest desire of its teacher was to add the greatest number to his ranks.

As regards the prohibition to 'the laity clad in white'—we gather from the very Vinaya, that 'All the Ascetics of the age, were not clad in raiment other than white.' Svetambaras formed a very numerous class who wore *white*. The Digamharas wore neither white not coloured clothes. We have no information as regards the dress of the Fire-worshippers of U'ruvelâya; and, although they were all of that faith, it does by no means follow that they were *Ascetics*, or—except their chief, whom we may admit to be their priest—that they were not in the strict sense of the word 'laics' or 'house-holders.'

Again, kings, princes, and nobles wore rich garments of various colours, Why should miracles be worked to accelerate the conversion of such alone, to the exclusion of the 'laity clad in white'? But it may be said that Buddha meant that miracles should be confined to *all Ascetics*, to the exclusion of the laity. Of course there is some warrant for this in the Pingola Bhâradvâja Sutta, where the prohibition against the performance of miracles is confined to the laity. Here too the words 'dressed in white' do not

occur. We have already seen the unreasonableness of the limitation to the yellow-robed priests, and the impropriety of the laity being excluded from the influence of miracles.

It is indeed unreasonable to believe that Gotama could have ever intended to confine his miracles to the priesthood, who were dressed in yellow, or to any other denomination of Ascetics. We think we may reject the words 'clad in white' as an addition of the compilers: and still we have the word 'laity' which also occurs in the Vinaya Lib: iii.

It has been suggested to us that the intention of Gotama to restrict the prohibition to the working of miracles before the laity, was shewn with sufficient clearness in the Pingola Bháradvája Sutta—that intention being 'to prevent his disciples from acquiring pacayá, or the necessaries of life by the exhibition of miracles.' That intention, it will be observed, is not expressly stated. It may certainly be gathered from the legend; but against the acceptance of such an intention there are several reasons. In the first place the express reason given in the Kevatta Sutta against Iddhi patihariya *generally*, is, that miracles which could be worked—and they are enumerated—were of a kind similar to wonderful acts of a Chirmachargist, and that therefore the populace might ascribe them to magic. This reason appears to enter into the very essence of the question, and is inconsistent with the belief that the prohibition had for its object the prevention of *abuse* of power. It establishes the absolute impropriety of the act. It admits of no exception. And if an exception were possible, the alleged exception in favour of the laity is cut from under the ground of the party alleging it; for it is quite clear that the

reason expressly assigned leaves no loop-hole for escape; and to say, that although miracles might be ascribed to magic by the masses who are utterly devoid of scientific attainments, and therefore very credulous—may nevertheless be exhibited to *Ascetics*—a class, who, whatever might have been their sectarian learning, were generally better informed, more intelligent, and more competent than the common rabble to form an opinion as to the similarity of iddhi patihariya to the feats of the Magician. In the second place, there was no occasion to fear any extortion by the exhibition of miracles to the laity. By a rule already enacted by Gotama, a priest could not ask for anything. Nor did Pingola Bharadvaja ask for the bowl mentioned in the legend. It was a free-will gift of the donor, who had been first satisfied of the sanctity and the iddhi of the donee. The former witnessed the miracle, and it is remarkable, did not ascribe it to devilry or magic. He sincerely believed it to be iddhi patihariya, and parted with his bowl in the spirit in which he might have given it, had he been edified by a discourse on Nibbana.

In the next place, if the exception was intended to guard against extortion, how was the object to be attained by limiting the exception to the laity? True enough that Bhikkus were 'beggars' or 'houseless mendicants,' and had nothing to give; but the same cannot be said of other classes of ascetics—e. g. the Brâhmans, the Tirthakas, the Fir-eworshippers (supposing they came under the designation of Ascetics), and many others.

But it is expressly stated that Buddha performed miracles, doubtless with a view to conversion. This from a Teacher who 'abhorred, refrained from, and censured

miracles' is, to say the least, contradictory; and being contradictory incredible: and our incredulity is intensified when on examination, we find that nearly all his miracles were such—as Gotama himself thought, and Kevatta acknowledged—as might be ascribed to magic. We think, therefore, that we may safely trace the word 'laity' to the compilers, and pronounce it to be an unauthorized addition to the Sutta, and to the Sikkhà.

How then are we to account for the existence of records concerning miracles by Gotama and his disciples?*

We have no difficulty in pronouncing some of them to be allegorical representations, like the battle with Marà; others exaggerations, like the taming of the Cobra in the Fire-house, *vide post;* others inventions, like the traversing over water; others again magical delusions, like the conversion of one substance into another: but they are all *Myths.*

That some wonderful feats were performed by Gotama's disciples we need not hesitate to admit. For instance, we do not disbelieve that Pilindavaccha, like his Master, possessed the art of illuminating a place; and since the legends shew that the illumination of Bimbisára's palace, like that of a Chirmachurgist was of momentary duration, we need not hesitate to ascribe the work to magic, and pronounce it to be a 'Myth.' As myths, we need not necessarily pronounce these miracles to be entirely 'conscious fiction,' for, as remarked by Strauss† 'the Myth, in its original form, was not the conscious and intentional invention of an indivi-

* Mahinda is stated to have produced a mangoe at an unseasonable period; see Mahavansa.

† New Life of Jesus, p. 206.

dual, but a production of the common consciousness of a people or religious circle, which an individual does indeed first enunciate, but which meets with belief for the very reason that such individual is but the organ of this universal conviction.' We can easily imagine how such a thing was not only possible but probable. Take, for instance, the group of miracles at U'ruvelâya, which we shall hereafter notice more in detail. They are stated to have taken place when Buddha was alone in the neighbourhood of 500 Fire-worshippers. It is not stated that any of his disciples were present; nor does it appear that some of his miracles at least were witnessed by any accept one, viz., U'ruvela Kassapa. It is then probable that the record contains what the compilers had heard from others. Doubtless they heard of the conversion of a thousand Jatilas. This of itself was a wonderful result; and the disciples probably were anxious to learn, and did learn, how that result was brought about. 'Why,' said their informants, 'Gotama practised miracles, and conversions followed.' If when these miracles were related with the inexactitude of persons who had no regard to strict truth, but every wish to exalt the sanctity and virtues of the new Teacher, the listeners depicted the legends in high colours, with a desire also 'to paint their master,' who had just before died, and whom death had raised in their estimation and affections, we need not be surprised at legends such as the following, which we shall now proceed to examine :—

During Gotama's stay at U'ruvela he found three fraternities of Jatilas, or Fire-worshippers. One U'ruvela Kassapa was at the head of 500; Nandi Kassapa was the chief of 300; and Gaya Kassapa of 200. When Gotama

requested of the first permission to stay one night in his house set apart for 'Fire-worship,' Uruvela told him that there was a huge Cobra in it, and that he feared Gotama was not safe there. Unmindful of the danger pointed out, Buddha took his lodgings there, when the Nàga emitted a venomous blast, and Buddha returned it by sending forth a volume of smoke and fire, which completely tamed the animal. On the following morning Gotama put the reptile into his bowl, and with triumph exhibited it to his friend. This was 'Miracle No. 1; and it is similar to another performed by Sàgata,* which we shall here notice.

Once upon a time Gotama, accompanied by his disciple Sàgata went to Bhaddhavàtika, where he was advised by some husbandmen not to enter Ambatittha, because there was a formidable Cobra in the Temple of a Jatila. Regardless of the warning thus received, Sàgata entered the Fire-house of the Jatila, and tamed the Cobra very nearly in the same manner indicated in Miracle No. 1. When the fame of the priest, for working miracles spread abroad, people flocked around him and gave him some Kapatika. The wonder-working priest had not imbibed many doses of this red liquor, before be became intoxicated, and fell down at the gate of the city. Gotama seized the opportunity to shew the utter prostration of man's power by intoxicating drinks, and to remark, that 'the man, who fought with a formidable nàga, could not overcome, in that condition, a feeble and harmless water-snake'; thus clearly shewing that the power of alchohol proved superior to what is called his iddhi.

* Vinaya Pitaka, lib. ii. Cap. 1, Section 6.

Now, taking the legends to be substantially true, we fail to perceive any miracle in the acts ascribed either to the Master or his disciples. It is only invested with such a character by the grandiloquent language used in the relation of a simple act, characteristic of Eastern writers. It was indeed very likely that the Cobra on seeing the new-comer hissed ; and this induced the idea of a ' venemous blast.' We know that ' fire' and ' smoke' are some of the agents employed in the east to catch Cobras ; and there is no wonder, that being in ' the Fire-house' of the Jatila, Gotama soon kindled a heavy fire, and raised a volume of smoke---all which so much oppressed the poor creature that he tamely submitted to the ' dominion' of man. It will thus be seen that if we exclude the haze of miracle and mystery with which a simple story is surrounded by the narrator, viz., that the volume of fire and smoke issued spontaneously without material agency, and at the will of Gotama,---we have no reason to regard this as a miracle. Nor did U'ruvela Kassapa, it is stated, so regard it ; and we shall proceed with.

Miracle No. 2. In the course of the day following his stay at the Fire-house, Gotama took his seat in a brushwood ; and four guardian gods of the world ministered to him at night, and exhibited a most resplendent illumination.

Miracle No. 3. On the third day Indra excelled the guardian gods in illuminating the same brushwood.

Miracle No. 4. Sahampati Mahà Brahmà, on the fourth day exhibited a light more resplendent than any that had been previously witnessed by the Jatila chief.

These, it will be observed, are strictly no *miracles*. They were not the work of Buddha. Though they are referred to the agency of the popular Indian gods* of the time ; yet if we divest the agents of their alleged divine character, there is nothing wonderful in an illumination, which, perhaps, did not exceed the light produced by a single gas light of the present day.

Miracle No. 4. On the fifth day the Jatila Chief reflected that, Gotama being such a wonderful person, it would never do to have him at the grand Sacrifice, which was to take place on the following day; since the people, who would then assemble, might treat him with greater veneration than they did himself. Gotama, perceiving what passed in the Jatila Chief's mind left U'ruvela, and spent the sixth day in the Himaleya. When he returned on the seventh day Kassapa inquired from his friend where he had been, adding that he had kept some cakes for him. Gotama replied that *divining* his thoughts he had left the place.

Again we see nothing in this story, which leads us to doubt its historical accuracy, if we except the mode in which it is related. A shrewd observer like Gotama, without any power of divination, might have seen a hundred circumstances whence to suspect the uneasinesss which the Jatila Chief felt at his presence. That he therefore left the place not to interrupt the arrangements of the next day's ceremony is indeed very probable; and it is still more probable that he stated the fact afterwards when questioned—a fact which consisted of a simple suspicion,

* The popular gods of India---the objects of a constant and exclusive worship of the times.

but which the Narrator would have us know, was positive knowledge on the part of Gotama by the power of divination.*

Miracle No. 5. In process of time, whilst dwelling in this brushwood, Gotama found a pansakula robe; and he reflected where he could wash it. Instantly the gods created a pond. When he had descended into it and washed the robe, he found it difficult to get out; and the gods instantly brought within his reach an arm of a neighbouring Kumbuk tree. When, again, he was at a loss how to procure a stone on which he might wash his robe, he was miraculously provided with one, as well as a large stone-slab for spreading the cloth. The Jatila, on seeing these four objects in places where they had not previously existed, was filled with wonder, and asked his friend to breakfast.

If one thing is here more remarkable than another it is that all these four objects were created,—not by Buddha who had no creative power, but by the gods. But putting all supernatural agency out of the question, the facts stated admit of an easy interpretation; and we may trace the presence of these four objects to human agency. We learn from the subsequent part of the narrative (see Miracle No. 13 infra) that the place which Gotama occupied was soon after covered by a flood. That circumstance taken in connection with the presence of Kumbuk trees, which generally grow near rivulets and water-courses†, renders it very probable that the brushwood

* Arrian tells us that 'Divination' was an art known to the Indians.

† See Forbes' Eleven Years in Ceylon vol. ii., p. 186.

was at no great distance from a running stream. These rivulets in the East are ever covered with stones of different kinds. The digging of a small well in such a place, in the vicinity of water, could not be a formidable task for a couple of men, nor a matter which would occupy more time than a few hours during night. The bending down of a branch of a Kumbuk, so that it might extend over the pond was not an impossibility. The removal of a stone, and a slab from the river into the brushwood was certainly within the power of human agency. Though the presence of Gotama's disciples at this spot is not mentioned, yet on the other hand it is not expressly denied. Why not then attribute the digging of a pit, which receives at the hands of the Narrator the proportions of a pond,—the rolling of a couple of stones, and the bending or twisting down of a branch of a neighbouring tree to the agency of those who were anxious to exhibit some 'signs' of iddhi pàtihàriya to the Jatila Chief? Of course the presence of these four objects was observed, and they surprised the Fire-worshipper; but though surprised, it is very remarkable that he himself did not regard them in the light of *Miracles*; for, it is expressly stated in the legend that on this occasion as well as on the performance of each alleged Miracle of this group, the Fire-worshipper reflected that 'though his friend was a very distinguished person, yet he did not surpass himself in sanctity.'

Miracle No. 6. We left the Legend at the mention of an invitation to Buddha for breakfast, which Gotama accepted, and desired the Jatila Chief to precede him. When he had accordingly left the spot Gotama went through the air to 'that tree from which Jambudípa is

named'; and, taking some of its fruit, went to the residence of his kind friend before he himself arrived in it. When, however, the Jatila Chief saw Gotama whom he had just before left behind, he was not a little amazed, and inquired, how that came to pass. Gotama it is said explained, and gave his host some Rose-apple, which he refused to accept.

Going through the air is a Miracle, the performance of which is stated by Gotama himself to be possible. But it is not a little remarkable that he admits that the same feat may be worked by Magic, and that the gods had to provide him who could rise in the air with a Kumbuk branch to help his ascent from the well. We therefore refrain from any further comments beyond stating that if Gotama intended an ocular deception, which we, for reasons which will be explained, are rather disposed to disbelieve, he might have overtaken the Jatila Chief by a nearer passage, andreached his house before him.

Miracles Nos. 7, 8, 9, and 10, are similar to the last; and have reference to the fetching of different fruits and flowers from very distant places, one of which was the *heaven* called Tàvatinsa. On all these occasions Kassapa was overawed by the might and wondrous power of his guest; but reflected, as before, that Gotama was not superior to himself.

When such is an acknowledged fact, we may easily conclude, that whatever mystery and miracle there may *seem* to be in the representation of these acts by the Narrator by importing 'heavens' into an otherwise plain story, and however much the acts might have been declared as 'clever,' yet there was nothing in them so miraculous as to shake the pre-existing faith of the beholder, for whom

they were expressly intended,—or to elevate his reverence for, or to fall down and worship, the worker of Miracles.

Miracle No. 11. For the celebration of another Festival, the Fire-worshippers of U'ruvela attempted to get some fuel ready, and with this object they set about making faggots. But, so long as Gotama willed it the logs did not yield to the axe, neither did they take fire; nor was the fire extinguishable.

Miracle No. 12. It is next recorded that Gotama miraculously produced five hundred mandámukhì, or fire-urns,' which he presented to the 500 Jatilas. Both these miracles are also recorded in the following verses, which are stated to be the interpolation of a subsequent date.

Bhagavato adhiṭṭàne na apañcakaṭṭh satàni na pàliyinsu nä ujjalinsu ujjalinsu navijjàyinsu pañca mandà mukhì satàni abhinimmini. 'By the mighty operation of Buddha [was it that] the 500 pieces of firewood were not split, and took no fire: [and it was by the same power that] they did take fire, were not extinguished, and were [afterwards] extinguished; and that he created 500 urns for fuel'—*Mahávagga, Vinayapiṭaka.*

These two Miracles do not easily come within the category of iddhi patihariya given in the Kevatta Sutta. They are not, as the exemplified cases are, 'dumb-shows' or occular deceptions.' One of them, at least, if true, proves what Buddhism does not claim for its founder, a creative power. As such, therefore, it is clearly a myth; but it is not impossible to believe that the fire-urns were produced by Gotama's followers; and by a little jugglery they attributed their exhibition to miraculous power; and at a time too

when conveniently all the 500 Jatilas were, as is stated, enjoying a plunge in the Neranjara.

There is then no difficulty in ascribing both these Miracles, as Buddha himself has suggested, to the art of Magic. There is indeed another view as regards Miracle No. 11. We have no clear evidence to prove that Magnetism was known as a science in ancient India; but we are inclined to the belief that many a marvellous feat of the Indian Juggler is ascribable to a knowledge of its power.

Miracle No. 13. The Legend concludes the relation of these Miracles by stating that at this period there was unseasonable rain, that the whole country was inundated including the place in which Gotama had his lodgings, and that by his miraculous power the spot on which he sat was not covered by the water, and was consequently dry. Kassapa, who went in a boat to fetch his friend, was again amazed, not only at the phenomenon just described, but at his friend coming over the water to meet him.

It does not appear whether the spot on which Gotama was seated was either high or low. Nor do we find that the waters which flooded the country, stood in a wall around the sage. But it is not improbable that the place was a hillock, and the waters had not risen so high as to cover its brow. As to his going over the water, we can only regard this as a myth, or an optical delusion. At all events Kassapa did not regard it as a Miracle.

We have thus reviewed some of the most important of the Miracles ascribed to Gotama Buddha. We have examined them with a view to ascertain if they are not simple exaggerations. We have shewn how some of them, at least, are inconsistent with the undoubted principles of Buddhism,

The question which next presents itself is, what opportunities had the compilers for observing and correctly recording the particulars connected with these so-called Miracles?

The disciples were not always present with the Master. Even if they were, they did not themselves perceive and hear all that they recorded. Even if they did, they could not record, and, as we can shew, did not record, everything; and it was not the wont of any of the ancients to abstain from importing all their own ideas and notions into a matter which they described, or recorded. Zealous in the cause of a Religion which they believed to be the true—over-enthusiastic in extolling the praises of a Teacher whom they regarded as omniscient—credulous in the extreme of matters which the more ignorant people of the present times generally accept as fabulous—ignorant of the most trivial laws of nature—unaccustomed to weigh and balance the evidence necessary to establish a fact however simple,—and led away by the current of superstitions, and belief in Miracles, which were the order of the day, Gotama's disciples, it would seem, hesitated not, for a moment, in recording what they heard, to amplify the tale like 'the story of the three black Crows.'*

* N.B.—The remainder of this paper containing the text and translation of Kevatta Sutta, is held back for want of the necessary type for its publication.—Ed.

On the occurrence of *Scolopax Rusticula* and *Gallinago Scolopacina* in Ceylon, BY W. VINCENT LEGGE F. Z. S.

The occurrence of the woodcock and common snipe in Ceylon, has been more than once recorded, on "Sportsman's authority," by those naturalists who have given their attention to the ornithology of the island, in addition to which, during the past ten years, the former bird has been reported to have been killed several times in the vicinity of Newera Eliya; unfortunately, however, the specimens have never been preserved, falling to the lot of the cook and not the ornithologist, and therefore, as regards the ends of science they have been worthless. It may be well, before I enter upon a notice and description of the first scientifically identified examples of these interesting birds, procured in Ceylon, to recapitulate and comment upon, the remarks made by Messrs. Kelaart and Layard, on the existence of the two species here, and which are contained respectively in the Doctors *Prodromus Faunæ Zeylanicæ* and in the notes on Ceylon birds, published by the latter gentleman in the 14th vol. of the *Annals and Magazine of Natural History*, 1854.

Kelaart says, P. 110, Prod. F. Zey., "the woodcock, "the same as the European species, is found on Horton "Plains and occasionally at N. Eliya. We have not "seen the bird, in the feathers, but we have seen a couple "of birds, called "woodcocks" at a dinner table, which "tasted uncommonly like the birds of that name. We

" have no doubt of its existence in the Island, as several " English sportsmen assured us of their having shot it." So much for the woodcock. With regard to its smaller ally, the Common* or British snipe, he remarks in the same paragraph : " the English snipe is found in some of the " highland districts : we have seen a few at N. Eliya." It is doubtful in what sense this concluding sentence is to be taken, as, farther on, in his list of the birds found in Ceylon, P. 135, Kelaart gives both *G. Scolopacinus* and *G. Gallinula* (the jack snipe) with an asterisk, and says in a foot note at the bottom of the page, " we have only sportsmen's authority for the species of snipe, marked with an asterisk " leading I would surmise, to the inference that he had only seen, or thought he had seen, the bird on the wing, and not handled it in the flesh, and this is the more likely, when we consider that he occupied himself much more with reptiles and animals than with birds. Layard *(loc. cit.*, p. 266*)* depends chiefly on Kelaart's evidence, and says but little in favour of the occurrence, here, of either of the birds in question. Of the woodcock he remarks as follows :—" The woodcock has been shot several " times at Newera Eliya, but has never fallen under the " notice of either Dr. Kelaart or myself :" and then quotes the Doctor's words, *vide supra.*

* When remarking on the prevalence of the Indian snipe, in this Island, to the exclusion of the European species, I have so often been met with astonishment on the part of sportsmen and others, under the impression that our winter friend was identical with the bird found at home, it may perhaps be as well to remark here that the two species are very different indeed although to the casual observer they may seem to be the same, the Indian bird differing chiefly *in the markings of the flank and under wing coverts and in the structure of its tail, from the remarkable " pin" feathers of which*, it takes its specific name of *Stenura* or " *Pintail.*"

Touching the Common snipe, Layard says "not having "met with it, I am obliged to quote Dr. Kelaart for its "identity; he says 'It is found &c. &c.' I shot many "snipes at Gilleymally, which proved to be the preceeding "species * ; but I see no reason why the bird should not "exist in the Island, as it is found at Calcutta. Why "however in this case"—referring to Kelaart's mention of it at Newera Eliya—"should it be confined to the hills †"

Mr. Holdsworth, when in Ceylon, devoted his attention to the identification of these two species, but was unsuccessful, although he passed much of his time at Newera Eliya ; but the news of the securing of the woodcock, which I shall presently refer to, reached him before the completion of his Catalogue of Ceylon Birds, published last year in the proceedings of the Zoological Society, and he was therefore enabled to speak with certainty as to its occurrence in the island. With regard to the British snipe he remarks, No. 241, Catalogue, Ceylon Birds "of the four reputed Ceylon species *G. Stenura* appears to be the only one which has been positively identified."

So much for the previous history of these two members of the *Scolopacinæ* as regards Ceylon, and though it has taken up some little space in what I would wish to make a short paper, I doubt not, that in a scientific point of view, it cannot but prove of some interest, as shewing the spirit of enquiry displayed by these naturalists as to whether our island should prove to be the most southerly point reached by birds of such wide northern distribution

* *Gallinago Stenura*, the "Pintail."

† And so I would ask too---this remark of Kelaart's leads to the belief that he was mistaken in his identification.

as they are. And there is no doubt whatever, that in most of the instances referred to, the woodcock at any rate, had been rightly identified by those who had shot it : furthermore it is very improbable indeed, looking at its geographical distribution, as regards Southern India, in the cold season, viewed in connection with the remarkably analogous avi-fauna of the Nilgherries and Newera Eliya, that a single season passes without its visiting the higher parts of our mountains. In some few instances, nevertheless, the Wood snipe, *G. Nemoricola*, Hodgson, which I shall presently refer to, has probably been mistaken for the "Cock" by those who were not acquainted with the distinguishing characteristics of the latter, the most important being the feathered tibia *down to the tarsal joint*, in contradistinction to the *bare* space above that part, which specializes at once all the members of the genus *Gallinago* or Snipe.

The example which has at last enabled us to speak with certainty of the occurrence of the woodcock in Ceylon, was shot last* year in February near Newera Eliya, by Mr. Fisher of the Ceylon Civil Service, and was given to a Planter by whom it was sent home not long ago, to Mr. Holdsworth. Through the kindness of a gentleman who was taking the skin to England, I was enabled to examine it and take a description of it which I propose to introduce here for the benefit and information of those members of our Society who are sportsmen, and whose experience of the bird at home, has perhaps not

* I am unable to procure a copy of the paper in which the event was noticed, and I cannot therefore, give the precise date.

been sufficient to make them thoroughly acquainted with its plumage.

Dimensions. Wing, from carpal joint 8 in. Bill at front nearly 3·15; tarsus 1·4; mid toe 2· its claw 0·3 hind toe 0 5.

Soft Parts. Not having seen the bird in the flesh, I am compelled to quote from Dr. Jerdon's Birds of India, "Bill fleshy grey; legs livid; iris dark brown."

Description. Lores, chin and sides of forehead greyish fulvous, top of head and occiput dark sepia brown, barred and tipped with rich fulvous tawny, a darkish line running down the forehead to base of bill; a broad sepia brown line from gape to eye; above, general aspect of plumage dark sepia brown and ferruginous, the back and wing coverts being barred with the latter and the interscapulars, scapulars and tertials mottled marginally and indented with the same; interscapulars, and scapulars tipped and crossed with rich buff mostly on the outer webs, and with the dark markings on the inner webs black; greater wing coverts barred with buff; lower back and upper tail coverts more narrowly barred than the adjacent parts; quills dark hair brown, spotted marginally with buff and barred with ferruginous on all but the first and second, which are only edged and indented with white, and with buff respectively; tail black, marginally spotted with rufous and broadly tipped smoky grey, which shows white beneath; under surface fulvous tawny, narrowly barred with brown; under wing coverts the same, the tawny ground color darker than elsewhere beneath.

The woodcock, as far as Asia is concerned, breeds and spends most of the year in the north of the continent, and migrates in October to the Himalayas and wooded

regions of all the mountain ranges of central and southern India, some few, as we can now safely testify, straying as far south as the mountains of this island. According to Jerdon it is tolerably numerous in the Neilgherries, and in Coorg, in which latter place, good bags are frequently made. I have no doubt, that if the woods round Newera Eliya were beaten with the help of dogs, stray birds would often be picked up. It should be looked for, as in England, along the damp boggy edges of streams in the forest, say between the Sanatarium and Horton plains.

The woodsnipe, *Gallinago Nemoricola* Hodgson, is recorded, by Jerdon (Vol. III, P. 672 of his Birds of India) as occurring in Ceylon, but it is not clear where he obtained his information from*. Mr. Neville, however, (J. A. S., C. B., 1876—70, p, 138) has set the matter at rest by describing there a specimen of this species that was shot near Newera Eliya four to five years ago. It is much to be regretted that the skin was not preserved, as it would have been an exceedingly valuable addition to the Society's museum. Looking at various characteristics of this snipe, such as its size, large ample wings and consequent heavy flight, resembling that of the woodcock, it is possible that in the absence of specimens of the latter for comparison, it may have been mistaken, as I have remarked (*ante*, p. 67)† for that bird, but with the very limited *data* to hand, concerning either species in Ceylon, it is impossible to speak with certainty on this point.

* Neither Layard or Kelaart makes mention of this bird from Ceylon.

† The woodsnipe according to Indian Authors is as rare, if not rarer, in India than the woodcock, and therefore it will be as well to remark that my reasons for stating that it "had probably been mis-

The example of the Common snipe, *Gallinago Scolopacinus*, which I have the pleasure of bringing to the notice of the Society to-day, and which furnishes the first authenticated instance of its occurrence in this country, was shot at the great snipe ground of Tamblegam, near Trincomalie on the 6th of January last, by Major Meaden of the Ceylon Rifles. On proceeding to that station in October last, I was informed by more than one gentleman, of the existence during the last few seasons, in the immediate neighbourhood of the port and at the above mentioned place, of a different kind of snipe from the Pintail. It was described to me as being about the same size as that bird, possessing a white bar on the wing and

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taken, &c." (*ante p. 67*) are founded on remarks I once heard from a gentleman concerning a reputed woodcock seen at Newera Eliya some years ago, and which were to the effect, that "it was only a large snipe." It is not unlikely also that it is a straggler to the lower country of Ceylon, as I have it on very good authority that a very large snipe, which by the way I wish I had seen, was shot near Galle last March twelve months. I append here Jerdon's *description* of this species (Birds of India, vol. III. p. 672).

"Top of the head black, with rufous yellow longish markings; upper "part of back black, the feathers margined with pale rufous yellow and "often smeared bluish; scapulars the same, some of them with zigzag "markings; long dorsal plumes black with zigzag markings "of rufous grey, as are most of the wing coverts; winglet and "primary coverts dusky black, faintly edged whitish; quills dusky; "lower back and upper tail coverts barred reddish and dusky; tail "with the central feathers black at the base, chestnut with dusky tips, "towards the tips; laterals dusky with whitish bars; beneath, the chin "white, the sides of the neck ashy, smeared with buff and blackish; "breast ashy, smeared with buff and obscurely barred; the rest of the "lower plumage with the thigh coverts whitish with numerous dusky "bars; lower tail coverts rufescent with dusky markings; under "wing coverts barred black and whitish. Bill reddish brown, pale "beneath; iris dusky brown; legs plumbeous green.

Length 12½ in.; extent 18 in.; wing 5¾ in.; tail 2½ in.: Bill at front 2 5-8th in.; mid toe 1 10-16th in.

having, on being flushed, a very hoarse kind of "pipe," reminding one of a bird with a cold!

I was unable to premise from this diagnosis* what the species might prove to be; my friends however, promised to keep a sharp look-out for the stranger, and accordingly my curiosity was ere long rewarded by a specimen of the British Snipe being brought to me on the 29th of December, but which had been so devoured on the way home by ants that it was useless. A week later I again received through the kindness of the same gentleman, a second example, the sex of which, however, I am unable to record, as it was shot and skinned for me while I was absent on a shooting trip. Nevertheless I propose to describe it in the pages of the journal of this Society, as being the first of its species *identified* in the island, and as affording a means of comparing it with, and distinguishing it from, the allied Malayan form so common with us every year.

Dimensions. Wing 5·2 inches; tail 2·25; tarsus 1·2; mid toe 1·1; its claw 0·2; outer toe and claw 1; bill to forehead 2·7.

Soft Parts. Iris brown; legs and feet greyish green; bill reddish brown, paler beneath.

Description. Centre of forehead, crown and occiput dark sepia brown, edged rufous on the latter part; chin, throat and cheeks, with a stripe over the eye from base of bill and another mesial line on the head, buff grey with a dividing stripe from nostril to eye; back of neck and upper part of its sides dark brown, with buff and grey

* My informants referred, as I afterwards ascertained, to the white tips of the secondaries, when speaking of a *white wing bar*.

terminal spots on the outer webs; interscapulars, scapulars and dorsal plumes black, with buff outer margins and tips, and irregular cross lines of rich fulvous; back brown the feathers tipped greyish, with the upper tail coverts changing into rufous yellow with black interrupted bars; quills and median wing coverts, hair brown, the latter edged and tipped greyish; primary wing coverts and secondaries tipped white, the latter very broadly so; 1st primary with a white outer web to within an inch of the tip; tail black, the terminal half-inch rich rufous with whitish tips and narrow cross lines of black; beneath, foreneck and sides brown with fulvous edgings, and dark mesial lines breast and belly white, flanks brown with light tips and bars; auxilliary plumes white with narrow, distant brown bars; under wing coverts white, *barred lightly* with brown.

Major Meaden whose attention was forcibly drawn to the existence of this snipe near Trincomalie by its peculiar note, informed me that he had not noticed it prior to some two or three seasons back, although he had been shooting over the same ground for the past ten or eleven years. A pair frequented the vicinity of the "Salt Lake," a small snipe ground, some four miles north of the town, the year before last, but were not seen there this season.

As remarked by Layard (see *ante*, p. 66) I dont comprehend why the common snipe, in the days of Kelaart should have been "confined to the hills," and, as frequent inquiries of late years, have failed to elicit any information as to its occurrence in the Central Province, it is highly probable that, as Kelaart most probably never handled the bird in the flesh, he was mistaken in his identification of the species. It no doubt occurs in the Jaffna peninsula

in common with the jack snipe, *G. Gallinula*, which I am informed, on a very good sportsman's authority, is frequently shot there. This species again, requires scientific identification, and I am very sanguine of obtaining specimens next season when I shall hope to have the pleasure of introducing it to the notice of the Society.

The distribution of *G. Scolopacinus* in India during the cold season, has, it appears, lately been exciting some attention. I notice that Mr. Hume (Stray Feathers, p. 235) found it, with *G. Gallinula*, in Sindh, to the exclusion of the "Pin-tail," and, as regards his opinion that it is *the* snipe of Bengal, *Stenura* being "scarcely ever found" there, "*Z.*" a well known Indian naturalist, remarks in the "Field" newspaper of February 8th, 1873, that he cannot agree with Mr. Hume and writes, *loc cit.*, "that of the myriads of snipe which are "brought yearly to the Calcutta provision bazaar, I know "from long experience that one occurs as commonly as "the other," and adds, further on in the same notice, that Mr. W. T. Blandford remarks (J. A. S. Bengal, 1869, p. 104) that he has never seen a specimen of *G. Stenura*, the Pin-tail, from central and western India, and quotes, in addition, another writer in the same journal (1871, p. 215) who says that *G. Scolopacinus* is the snipe of Nagpore; that at the Nilgherries and at Bangalore all the snipe he had killed were Pin-tails, whereas at Madras in December, the two species were in about equal proportions. These observations, therefore tend to shew that the Common or British snipe affects the north-west (Sindh) and west of India, to the exclusion of the Malayan or Pin-tail, and that they both inhabit the Eastern side of the peninsula in

the *coldest* part of the season. This, on consideration, would seem to be the most natural range for the two birds, the former breeding in the western parts of Siberia and coming in round the western end of the great Himalayan range ; while the latter, which most likely breeds in the central part of the great Russian territory, and the country to the north of China generally, would, as a matter of course, enter India by the north of Burmah, and spread through Bengal and down the east coast of the Peninsula, monopolizing likewise the whole of our little Island, to the almost entire exclusion of its western and less tropical congener.

Transcript and Translation of an ancient Copper-plate Sannas, by *Mudaliyar* LOUIS DEZOYSA, *Chief Translator to Government.*

I have the pleasure to lay before the Society, an ancient Copper Sannas, together with translation and transcripts of the text in modern Sinhalese, and Roman characters. It was discovered a few years ago, under ground, in the Kadiràna Cinnamon Plantation near Negombo, by some women while digging edible roots.

The Sannas bears no date, but purports to be a grant,—or rather the confirmation of a previous grant of a former sovereign at Kurunegala,—by King Vijaya Bâhu, of Udugampola in Alutkùru Korale.

There are seven Kings of this name in the list of sovereigns of Ceylon; but from the forms of letters used, which are similar to those engraved in the Rock Inscriptions of the 14th or 15th Century, and from the allusion to a previous grant made when the seat of Government was at Kurunégala (between A. D. 1319—1346), it is evident that this grant must be ascribed, *(unless indeed it was issued by a Provincial Rájá of Udugampola not included in Turnour's List)* either to King Vijaya Bâhu VI., who reigned (according to Turnour) at Gampola [*Udugampola?*] A. D. 1398—1409, or to Vijaya Bâhu VII., who reigned at Kôṭṭe A. D. 1527---1533. If to the former, this Sannas derives a peculiar interest from the fact of its being a grant made by the unfortunate monarch whose capture by the Chinese is one of the strangest episodes in the

history of Ceylon. This event is represented in the Sinhalese annals, as an act of "Treachery," on the part of the Chinese, but in the Chinese version given by Sir Emerson Tennent,* as the result of a battle fought between the Chinese and Sinhalese armies. A writer in a local Newspaper † having recently charged the Sinhalese annalists with having omitted "some unpleasant episodes" in their history, I have collected some interesting particulars on this subject, which, however, instead of appending to this note, I hope to embody in a separate paper and lay before the society on a future occasion.

I have succeeded in deciphering the whole of the text of the Sannas, with the exception of a few unimportant words, the reading of which is doubtful, and I shall feel thankful to any gentlemen who may kindly favor me with their remarks on the doubtful words, which I have underlined in the Sinhalese, and italicised in the English Transcript.

TRANSLATION.

On the fifteenth day of the dark half of the month of *Poson* (1), in the ninth (2) year of the reign of the illustrious Emperor Sirisaṇgabo Srí Vijaya Bàhu, lineally descended from the happy, illustrious, progeny of Vaivassuta (3) Manu, born of the solar race, son (descendent) of Ràjà Sumitra, of pure race, lord of the three Sinhalas (4) and lord

* Vide his History of Ceylon Vol. I. p.p. 416-17, and p.p. 622-625.
† Ceylon Observer March 7th 1872.

(1) June—July.
(2) Lit "the succeeding year to the eighth."
(3) More correctly, *Vaivasvata*. The son of the Sun, the manu of of the seventh (or present) Manvantara.
(4) Lit the "three Ceylons." In reference to the ancient divisions of Ceylon into Pihiṭi, Máyà, and Ruhunu.

of the nine gems,—(His Majesty) by his royal command delivered while seated at the new palace at Uḍugampola (5) in the midst of all engaged in (state) affairs, has granted a second time, on the day of an eclipse of the sun, (6) by way of a second (or confirmatory) grant, on the terms of a previous grant received from the Court of Kurunégala, the field (?) *Walala** Palle Rérawila, situated close to it, the field Lindora, A'kata Diwela, Kękulan Owiṭa (7) together with villages, *moneys* (?), trees, jungles, marshylands, fields, Owiṭas, belonging to the *nilaya* (office?) of the two pèlas of husked rice (8) of Dombawala belong-

* The readings of the words in Italics, are doubtful.

(5) A village in the Dàsiya Pattu of the Alutkùru kòrale. It is mentioned in the history of Ceylon so far back as the second Century B. C. Prince Uttiya, brother of the king of Kęlani, is said to have made it his retreat on the detection of his criminal intrigue with his brother's Queen. Col. Forbes, who gives a full and interesting account of this romantic legend, [" Eleven years in Ceylon, Vol. I, p.p. 154--156] states that the Prince fled to *Gampola*, but the native histories distinctly mention that it was *Uḍugampola*. We learn from the *Rájávali* that a branch of the royal family of *Sirisangabo* settled itself in that village and from several circumstances mentioned in history, I think it is probable that king Vijaya Bàhu VI who was treacherously taken captive by the Chinese, was a Provincial Ràjá of *Uḍugampola*, and not the king of *Gampola*, as stated by Turnour and Tennent. I shall recur to this subject, when treating of the Rock Inscription at Pepiliyàna near Kótta, which I intend to lay before the Society on a future occasion.

Uḍugampola is situated about 25 miles from Colombo, and about 4 miles from the Veyangoḍa Railway Station. There are some Ruins still to be seen in the locality consisting of the remains of an ancient tank with retaining walls of masonry, and some stone works. The site of the palace is still pointed out as *Máligagoḍella* (Palace Hill) and from our grant, it would appear that more than one palace exist there, for this grant is stated to have been issued from " the New Pálace at Uḍugampola."

(6) The granting of lands " at the time of an eclipse" appears to have been an ancient custom of Indian kings (vide Translation of a Copper Plate grant of A. D. 1443, by John Beames Esq. B. C. S., in the INDIAN ANTIQUARY for December 1872, p. 355.)

(7) This field still retains its old name.

(8) This, I suppose, is the amount of rice contributed to the State by the tenants of these lands.

ing to Udugampola in the Alutkùru Kòrale,—to the Brahman Venrasu Konda Perumál * * * * making arrangements for its protection so that the grant may endure permanently. In proof whereof, I, Sanhas Makuṭa *Veruna* Vanapa Perumàl, have written and granted this Copper Sannas.

" Good men do not eat rice left in charity by good men ; dogs eat such rice, and although they vomit, they eat it again. Like them (the good men) if ye protect this grant given by good men, O good men ! you will acquire merit in both the worlds."

ṢRI'.

Svasti ṣrí Vaivassuta manu saṇkhyáta mahá Sammata paramparáṇuyáta Súrya vanṣotbhúta Sumitra rájaputra pavitra gotrábhijáta tri Siṇhaḷádhíṣvara navaratnádhipati Ṣrímat Siri Sangabó Ṣri Vijaya Báhu Chakravarti swámin wahanséṭa aṭawanen matu awurudu posona awa pasaḷoswakę Aḷutkúru Kóraḷaye mehibada Uḍugampaḷa santakin Dombawaḷa sál depęḷé nilayaṭa etuḷat*wú Wulala yíma* Pallé Rerawila Lindora Kumbura, A'kaṭa Diwela, Kękuḷan O'wiṭa mehibada gam *mudala* gasakola walwil kumburu ówiṭi paḷamu kuruṇęgaldílat dána-patraya niyáwaṭa dewaniwat Súryagrihaṇa dinaye bamuṇu Veṇraṣu Koṇḍa Perumáláṭa *yáruppáwá* uvadána kshetra koṭa sitá wadárá *chakra* araka *sapáya* svastirawa pawatiná niyáyen Uḍugampaḷa alut máḷigáwe węḍahinda káriyaṭa niyukta ęmadená męda wadáḷa mehewarin me támbrapatraya liyádun bawaṭa Sanhas mákuṭa *werun* Vanapa Perumálumha. Sudanó anun haḷa pinbatda noma kati. Balló é bat ká nęguwat nęwęta kati. Un sé topi me sujanan dun ayati rękaduna sujanayeni delowaṭama piṇ ęti.

ශ්‍රී.

සිද්ධං ශ්‍රී වෛ වස්සූනා මිතුසංඛ්‍යාතා මහා සම්මතා පරම්පරාණුප්‍යාතා සූඤ්ඊවිංශොත්භූතා සුමිත්‍රරාජපුත්‍රා පවිත්‍රගොත්‍රාභිජාතා තිසිංහලාධීශ්වර නවරතනාධිපති ශ්‍රීමත්සිරිසඟබෝ ශ්‍රීවිජයබාහු චක්‍රවර්ත්තී සිරිමේඝවර්ණාභය අටවනෙන් වතු අවුරුදු පොසොන අවපසළොස්වකැ අළුත්කුරු කොරළ යෙ මෙහිබඳ උඩුගම්පළ සනත්තාකින් දෙඛවල සාල්දෙපැලේ නිලයට ඇතුළත්වූ විලල සීම පල්ලේ රෙරවිල ලින්දෙර තුඹුර ආකාට දිවෙල කැකුළන් ඕවිට මෙහි බඳගම් මුදල ගසකොළ විල්විල් තුඹුරුඔවිවි පළමු කුරුණෑගලදී ලත් දුන පත්‍රය නියාවට දෙවනිවත් සූයඋග්‍රහණ දිනයෙ බමුණු ට විඳරගැ කොඩපෙරුමාලාට යැරුප්පාවා උවදුනක්ෂේත්‍ර කොට සිතාවදුරු චන්ද්‍ර අරක සපාය සිඩසතිරව පවතිනා නියායෙන් උඩුගම්පළ අලුත්මාළිගාවෙ වැඩහිඳ කාරියට නියුක්තා ඇමදෙනාමැද වැඳළ මෙහෙවරින් මෙහාඹු පත්‍රය ලියාදුන්බවිට සන්හස්මතුට වෙ රුණ් වසාප පෙරුමාළු ඕහ සුදනෙ අනුන්හළ පින්ඛන්ද නොමනති බල්ලෝ ඒ බන්කා නැගුවත් නැවතකති උන්සේ නොපි මෙසු ජනන් දුන් අයති රැකදුන සුප්‍රාණයෙති දෙලොවටම පින් ඇති.

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JOURNAL

OF THE

CEYLON BRANCH

OF THE

ROYAL ASIATIC SOCIETY.

1874.

19

PART I.

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THE HONORARY SECRETARY.

"The design of the Society is to institute and promote enquiries into the History, Religion, Literature, Arts and Social condition of the present and former inhabitants of this Island, with its Geology, Mineralogy, its Climate and Meteorology, its Botany and Zoology." —*Rules.*

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DESCRIPTION OF A SUPPOSED NEW GENUS OF CEYLON BATRACHIANS.

BY W. FERGUSON, F.L.S.

Trachucephalus.

Fingers and toes tapering, very slightly webbed. Lower jaw with marked, but not prominent apophyses, with a small fang-like process in the centre; the internal openings of the nostrils and eustachian tubes small; tympanum small, but conspicuous. Small parotoids present? The transverse processes of the sacral region dilated. (Maxillary and Vomerine teeth present.) Vomer with two separate toothed prominences. A toothed prominence on each side between the choanæ and the jaw. The upper eyelid well developed, but not prominent. A cutaneous fold between the fore and hind limbs.

Trachucephalus Ceylanicus.

Head very broad, much depressed, and very short in proportion to its breadth, the upper lip having a marked rim all along it, forming nearly a section of a circle, somewhat convex in front; the whole of the upper part of the

head including the eyelids and the tympanitic region, covered with small, irregular, granular tubercles. Snout considerably pointed, with its extremity prominent and perpendicularly truncated, and very slightly overreaching the cleft of the mouth. Canthus rostralis obtuse, loreal region concave, with a smooth groove running through it from the lower part of the orbit to the nostril. Occiput deeply concave. Nostril slightly below the extreme end of the canthus rostralis and the snout. Eye of moderate size, prominent, but concealed from above by the eyelid. Tympanum distinct, one half as large as the eye. A linear fold runs from the hinder edge of the orbit over the tympanum towards the armpit. Cleft of the mouth twice as broad as long; tongue not large, broadly but not deeply notched behind, attached to the gullet nearly its whole length. There is a toothed prominence on each side of the vomer, a little lower than the openings of the nostrils, and running in a straight line across the jaw. Vomerine teeth on long ridges gradually rising from the inner angle of the choanæ, running back and convergent behind, terminating in toothed prominences. Skin of the back, belly, throat, legs and inside of fore limbs smooth. The whole of the upper part of the head including the eyelids, the front of the fore limbs, and a remarkable cutaneous expansion on the side of the trunk between the fore and hind limbs covered with granular-like tubercles, with a few smaller ones on the tympanum. The smooth portion of the skin of the back is separated from the rough head by a somewhat elevated ridge, caused by a depression of the head, and running in a line across just behind the orbits, and continued into the linear fold behind the tympanum, a good deal like that in the adult *Rana Kuhlii*, figured by Dr. Günther, Indian Reptiles t. xxvi. fig. A. Limbs of moderate length, the length of the body two-tenths of an inch longer than the distance of

vent from heel. The third finger is about one-tenth of an inch longer than the fourth, which is slightly longer than the second. These three fingers form a palmated group in advance of the first, and are very slightly webbed. First finger about half the length of the third. Metatarsus with a small tubercle below the first toe. The fourth toe (including the metatarsus) is exactly one half the length of the body. The third toe is slightly longer than the fifth. A very short web between the first, second, third, and fourth toes only. The fifth appears to be quite free.

Upper parts (in spirits) dark brown with lighter coloured spots; outer parts of hind and fore limbs clouded with brown; inner sides, and the cutaneous expansion coloured dark grey, with small brown spots; belly dark livid colour; throat suffused with brown.

The following are the dimensions of the only specimen in my possession:—length of body 1·8; vent to heel 1·6; hind limbs 2·8; fourth toe (including the metatarsus) 0·9 inches.

I do not know any frog with which to compare this one in its general appearance and character; it is one of a few set aside from my collection by Major Beddome, when on a visit to Colombo lately, and pronounced by that gentleman to be new to science, and which, from a feeling of delicacy he declined to accept from me. In searching for its place in the synoptical list of the characters of the genera of Batrachians given in page 400 of Günther's work on Indian Reptiles, I felt that it could scarcely be removed from the first division, *b*, of the group of Ground Frogs, and it seemed most closely allied to the genus *Xenophrys*, of which one species *X. monticola*, is described and figured by Günther in the work referred to, p. 414, and plate xxvi, figure II.

In the generic and specific descriptions which I have given for this supposed new Ceylon frog, I have followed the exact order of Dr. Günther's description of the Indian frog above referred to, to facilitate comparisons between the two.

The generic descriptions of *Xenophrys* and *Trachucephalus* (rough head,) are in many respects so similar that it is not unlikely the former may be so amended as to include the Ceylon Frog, but the very distinct aspects of the two, and some remarkable differences more fully given in the specific description, have induced me to include our Ceylon frog in a new genus with a name indicating its singular *rough head*.

In page 85 of the Proceedings of the Asiatic Society of Bengal, for March 1870, the late Dr. Jerdon in the following extract from his "Notes on Indian Herpetology," has shewn that vomerine teeth are present in the genus *Xenophrys*:—"I obtained numerous specimens of *Xenophrys monticola*, Günther, both at Darjeeling and the Khasi hills. It has distinct vomerine teeth which Günther was unable to detect in the specimens of the British Museum. I also obtained five specimens of a larger species of *Xenophrys* both in Sikim and the Khasi hills, which I propose describing as *Xenophrys gigas*."

It is very likely that if these specimens of the undescribed species referred to, exist, it may be found that they have peculiarities of structure connecting them with *Xenophrys monticola*, Günther and our Ceylon frog.

I regret to say that I have only one specimen of this supposed new frog, and that I am not certain as to where it was found, though I believe I caught it on the sides of a stream near Hewisse in the southern portion of the Western Province, and famous as one of Mr. Thwaites's best botanical districts. I regret also to state that like many of the earlier frogs caught by me, this one was put into strong

spirits, which have shrivelled it up to a certain extent. It is very thin and flat in proportion to its size, and I doubt not that, like species of Hylorana, it is a powerful leaper. In the specific description given, I have tried not to omit a single character which might assist in the identification of this frog.

The interdigital membrane connecting the first, second, third, and fourth toes, is just perceptible, but I have no doubt that in newly caught specimens it will be found quite distinct.

I have marked the presence of *Parotoids* with a query thus (?)—because I am not certain whether the slight enlargements behind the orbits are parotoids or not.

Writing about *Rana Kuhlii*, Schl. of Ceylon, W. Theobald, junr., Esq., in his catalogue of Reptiles in the Museum of the Asiatic Society of Bengal, makes the following very appropriate remarks, which are equally applicable to all the Indian and Ceylon Batrachians, and the Geckotidæ.

"There are no reptiles in India in such a confused state as the *Ranidæ*, and I can add but little towards disentangling the shadowy species, real enough perhaps, but not as yet characterised. The series in the Museum is a very poor one, and the *Ranidæ* from all parts of India must be assiduously collected, before sound results can be obtained. Let us hope that an urgent appeal for frogs from all parts of India [and Ceylon, W. F.] will be liberally responded to by local naturalists and collectors, without which aid the subject must long remain in its present unsatisfactory state. Each contributor should not send merely the most conspicuous frogs from his neighbourhood, but all the species and varieties he can procure."

As an illustration of the liability to add to, and perpetuate the confusion connected with some of the frogs and other reptiles, I may refer to a rare Ceylon frog found first on Adam's Peak, several years ago by Dr. Schmarda,

Professor of Zoology in the University of Prague. On a fly sheet after page 21 of the second part of Dr. Kelaart's Prodromus of the Faunæ of Ceylon, published in 1853, this frog is very briefly described by the late Dr. Kelaart under the following name, "*Polypedates (?) Schmarda. n. s. nobis.*" The "*Schmarda*" being no doubt a slip of the pen for "*Schmardana,*" under which latter name, and under the genus Ixalus, Günther refers to this, then doubtful frog, in his Indian Reptiles, p. 433. Theobald in his Catalogue referred to, p. 85; gives this frog as follows:—

"Polypedates Smaragdinus, Kelaart, Ceylon. Eye bones armed with spines. Limbs studded with tubercular sharp pointed spines. A very peculiar species, and probably a distinct generic form."

Jerdon in the paper referred to, pp. 83-84, and Anderson in his list of accessions to the collection of reptiles in the Indian Museum, since 1865, refer distinctly to an Indian frog described by Blyth in foot-note to p. 48 of Appendix to Kelaart's Pro. Faun. Zeyl, as the *Polypedates Smaragdinus,* found on the Khasi hills. The specific name here means *Emerald Green,* and Mr. Theobald's *P. Smaragdinus,* ought to have been *P. Schmardana.* On page 85 of the Annals and Magazine of Natural History for January, 1872, containing "descriptions of some Ceylonese Reptiles and Batrachians by Dr. Günther, this frog is finally and I suppose properly named, though not yet described, as *Ixalus Schmardanus,*" (Kelaart.)

[Read 5th February, 1873.]

NOTE ON THE IDENTITY OF PIYADASI AND ASOKA.

BY MUDALIYÁR LOUIS DE ZOYSA, CHIEF TRANSLATOR TO GOVERNMENT.

When James Prinsep discovered the lost alphabet of ancient India, and read the rock inscriptions at Delhi, Girnar, Cuttack and Affghanistan, which had baffled the attempts of all previous Orientalists and others to decipher, he found that they were written in the Páli language, and were edicts issued by a king whose name was "Devánampiya Piyadasi Rája," "Piyadasi, the beloved of the gods;" but he was unable to find the name of such a sovereign in any Indian history, or record. He however lost no time in communicating his wonderful discovery to his friend and fellow-labourer in Ceylon, the late Honourable George Turnour, who at once identified the sovereign as "Asoka" or "Dharmásoka," the great Buddhist Emperor of India, under whose auspices Buddhist Missionaries were sent to Ceylon and various other countries in Asia, and in support of his statement, quoted a passage from the *Dípa Vansó*, an ancient history of Ceylon. Mr. Prinsep in acknowledging the service thus rendered to him by Mr. Turnour, wrote as follows:—"The first correction in point of importance, comes, as usual, from Ceylon, the very Lanka (to apply its own fabulous prerogative metaphorically,) the very first meridian whence the true longitude of all ancient Indian history seems destined to be calculated!" And again, "Mr. Turnour has thus most satisfactorily cleared up a difficulty that might long have proved a stumbling-block to

the learned against the reception of the lât inscriptions as genuine monuments of a fixed and defined period, the most ancient yet achieved in such an unequivocal form."—(*Bengal Asiatic Society's Journal for September*, 1837.)

In 1849 however, after the death both of Prinsep and Turnour, the late Professor H. H. Wilson, the great Sanskrit scholar, read before the Royal Asiatic Society of Great Britain and Ireland, an elaborate paper, extending over 100 pages, giving a proposed re-translation of Prinsep's edicts, together with the translation of one, then recently discovered at Kapurdigiri in Affghanistan. In this paper, the learned Professor while admitting the probability of these edicts being issued by a Buddhist king, and for the purpose of disseminating Buddhism, contended that the evidence on which these opinions were expressed by Mr. Prinsep, was not "conclusive," and that the identification of "Piyadasi" with the Buddhist emperor Asoka, rested on an isolated passage quoted by Mr. Turnour from the *Dípa Vansó* of Ceylon.*

Mr. Edward Thomas, the learned Editor of "Prinsep's Indian Antiquities," says,—"that in a subsequent article on the Bhabra Inscription, the Professor frankly admits that "although the text is not without its difficulties, yet there is enough sufficiently indisputable to establish the fact, that Priyadasi, whoever he may have been, was a follower of Buddha." Mr. Thomas adds, "Our leading Orientalist, it will be seen, still hesitates, therefore to admit the identity of Priyadasi and Asoka. With all possible deference to so

* The doubts raised by Professor Wilson on the identity of Piyadasi, and Asoka, have induced Dr. R. G. Latham to read before the Royal Asiatic Society an elaborate paper entitled "Date and Personality of Priyadasi," in which he proposes to identify Piyadasi, with Phraates, king of Parthia!

high an authority, I am bound to avow that I see no difficulty whatever in the concession. We may stop short of absolute and definite proof, that Asoka enunciated his edicts under the designation of Priyadasi, 'the beloved of the gods,' but all legitimate induction tends to justify the association which is contested by no other enquirer."—*(Turnour, Lassen, Burnouf, Cunningham, Sykes, Max-Müller, &c).*

I venture to think that something like "the absolute and definite proof" alluded to by Mr. Thomas may be found in the Buddhist annals of Ceylon. The identification of Piyadasi and Asoka, does not rest, as supposed by Professor Wilson, on a single passage of the *Dípa Vansó*, but the fact is well known to all Buddhist nations, at least to those of Ceylon, Burma, and Siam.

I am happy to be able to produce a few passages from Buddhist works other than the *Dípa Vansó*, in which the name "Piyadasi" is applied to king Asoka.

The first passage I shall quote is from *Sumangala Vilásini*, Buddhaghosa's Commentary on the "Digha Nikáya." In his Commentary on the "Mahá-parinibbána Suttan," the Commentator gives an account of the death, and funeral of Buddha, and the division of his relics amongst the various kings of India and the surrounding countries. He relates moreover, that after the distribution of the relics amongst the Princes of India, the main portion was deposited in a "Thupa" built of stone, and in it was also placed a golden plate on which the following words were inscribed:—

"අනාගතෙ පියදස්සෙ නාම කුමාරෙ ජනපදං උස්සා පෙත්වා අසොකො ධම්මරාජා භවිස්සති—සො ඉමාසං ධාතූනං විත්ථාරිතා කරිස්සතීති"

"Anágate Piyadáso náma kumáro chattan ussápetvá Asoko Dhamma Rájá bhavissati So imá dhátuyo vitthárità karissatíti."

"In a future (age) a prince named Piyadáso, raising the umbrella of dominion, will become king Asoka the righteous, and he will distribute these relics."

The Commentator further relates that 218 years afterwards, when king Asoka after his conversion to Buddhism, caused the relic receptacle to be opened for the purpose of obtaining relics to build "Thupas," he found to his inexpressible wonder and joy, the gold plate on which the above prediction was inscribed, and thenceforward, he became the most zealous patron that Buddhism ever had.

In *Rasaváhini*, which is a Collection of tales and stories relating to ancient India and Ceylon, the author in his account of Asoka, quotes the abovementioned prediction, and also mentions the fact that Asoka in his youth was named prince "Piyadáso."

The *Saddharmálaṇkára*, which by some is supposed to be a Siṇhalese version of the *Rasaváhini*, and by others its original, gives the following interesting and additional particulars, which are not found in any other work I have met with. It states that Asoka, on his birth, received the name of prince "Piyadása," "because his countenance was radiant as the polished surface of a mirror and pleased all beholders;"* "that when he held the Government of 'Avanti' under his father Bîndusára, he was known as prince 'Asoka,'"† That he was afterwards surnamed "Chandásóka," or "Asoka the Cruel," on account of his putting his brothers to death, and finally "Dharmâsoka,"‡ or "Asoka the righteous," on his conversion to Buddhism, and becoming a zealous patron of religion.

L. De Z.

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* Vide selections from Saddharmalankara, p. 4.

† Ibid, p. 5.

‡ Ibid, p. 14.

ON THE ISLAND DISTRIBUTION OF THE BIRDS IN THE SOCIETY'S MUSEUM.

BY W. VINCENT LEGGE, R.A., F.Z.S.

List of Birds in the Museum on 31st May, 1873.

No.
1 Spilornis Bacha, *Daudin.*
1 Haliaetus leucogaster, *Gmel.*
1 Polioaetus Icthyaetus, *Horsf.*
3 Haliastur Indus, *Bodd.*
1 Milvus Govinda, *Sykes.*
2 Tinnunculus alaudarius, *Gmel.*
3 Micronisus badius, *Gmel.*
1 Elanus Melanopterus, *Daudin.*
1 Circus Swainsonii, *A. Smith.*
1 Do. Cineraceus, *Montague.*
2 Athene castaneonota, *Blyth.*
1 Ninox Hirsuta, *Temm.*
4 Ephialtes Bakkamuna, *Forster.*
1 Syrnium Indranee, *Sykes.*
3 Caprimulgus Asiaticus, *Latham.*
1 Do. atripennis, *Jerdon.*
2 Cypselus Batassiensis, *Gray.*
1 Dendrochilidon coronatus, *Tickl.*
4 Coracias Indica, *Linn.*
3 Harpactes fasciatus, *Forster.*
3 Pelargopsis Gurial, *Pearson.*
3 Halcyon Smyrnensis, *Linn.*
6 Alcedo Bengalensis, *Gmel.*
1 Ceryle Rudis, *Linn.*
3 Merops Philippensis, *Linn.*
1 Do. viridis, *Linn.*
3 Do. quinticolor, *Vieill.*
2 Tuckus gingalensis, *Shaw.*
3 Loriculus Indicus, *Gmel.*
1 Palœornis Alexandri, *Linn.*
1 Do. torquatus, *Bodd.*
3 Do. rosa, *Bodd.*
1 Do. calthropæ, *Layard.*
3 Megalaima Zeylanica, *Gmel.*
4 Do. flavifrons, *Cuvier.*
1 Xantholäema rubricapilla, *Gmel.*
1 Do. Indica, *Lath.*

No.
4 Yungipicus gymnopthalmos, *Blyth.*
4 Chrysocolaptes chlorophanes, *Vieill.*
4 Brachypternus Ceylonus, *Forster.*
1 Do. puncticollis, *Malh.*
2 Centropus Rufi pennis, *Illiger.*
3 Polyphasia fasserina, *Vahl.*
1 Surniculus Dicruroides, *Hodson.*
2 Coccystes Jacobinus, *Bodd.*
6 Eudynamis Honorata, *Linn.*
1 Phœnicophœus pyrrhocephalus, *Forster.*
3 Zanclostomus viridirostris, *Jerdon.*
2 Nectaropila Zeylanica, *Linn.*
4 Arachnechthra Lotenia, *Linn.*
1 Dendrophila frontalis, *Horsf.*
1 Upupa nigripennis, *Gould.*
2 Hemipus picatus, *Sykes.*
2 Volvocivora Sykesii, *Strickl.*
3 Grauculus Layardi, *Blyth.*
4 Pericrocotus flammeus, *Forster.*
5 Do. peregrinus, *Linn.*
3 Artamus fuscus, *Vieill.*
3 Lanius cristatus, *Linn.*
4 Tephrodornis Pondiceriana, *Gmel.*
2 Dissemurus Lophorhinus, *Vieill.*
4 Buchanga leucopygialis, *Blyth.*
2 Myialestes cinereo-capilla, *Vieill.*
1 Leucocerca aureola, *Lesson.*
7 Tchitrea paradisi, *Linn.*
2 Alseonax latirostris, *Raffles.*
4 Cyornis Jerdoni, *G. R. Gray.*
3 Pitta brachyura, *Jerdon.*
2 Oreocincla spiloptera, *Blyth.*
1 Alcippe nigrifrons, *Blyth.*
2 Dumetia albogularis, *Blyth.*
2 Drymocataphus fuscicapillus, *Blyth.*

2 Pomatorhinus melanurus, *Blyth.*
1 Garrulax cenereifrons, *Blyth.*
2 Malacocercus striatus, *Swains.*
5 Layarda rufescens, *Blyth.*
3 Hypsipetes Ganeesa, *Sykes.*
3 Criniger Ictericus, *Strickl.*
5 Ixos luteolus, *Lesson.*
3 Pycnonotus hæmorrhous, *Gmel.*
1 Rubigula melanictera, *Gmel.*
6 Phyllornis Jerdoni, *Blyth.*
1 Do. malabaricus, *Lath.*
1 Iora Zeylonica, *Gmel.*
7 Oriolus Ceylonensis, *Bonap.*
4 Copsychus saularis, *Linn.*
3 Kittacincla macruma, *Gmel.*
3 Thamnobia fulicata, *Linn.*
4 Cisticola Schœnicola, *Bonap.*
2 Prinia Socialis, *Sykes.*
4 Drymoipas validus, *Blyth.*
1 Phylloscopus nitidus, *Latham.*
3 Calobates sulphurea, *Beckst.*
2 Limonidromus Indicus, *Gmel.*
2 Budytes viridis, *Gmel.*
3 Corydalla Richardi, *Vieill.*
1 Do. rufula, *Vieill.*
3 Zosterops palpebrosus, *Temm.*
1 Do. ceylonensis, *Holdsworth.*
5 Parus cinereus, *Vieill.*
2 Corvus Levaillanti, *Lesson.*
3 Do. splendens, *Vieill.*
1 Cissa ornata, *Wagler.*
3 Acridotheres tristis, *Linn.*
4 Eulabes religiosa, *Linn.*
7 Ploceus baya, *Blyth.*
3 Munia undulata, *Lath.*
1 Do. Malacca, *Linn.*
3 Do. striatus, *Linn.*
1 Do. Kelaarti, *Blyth.*
1 Estrelda amandava, *Linn.*
6 Passer Indicus, *Jerd. and Shelby.*
4 Mirafra affinis, *Jerdon.*
2 Pyrrhulauda grisea, *Scop.*
1 Alauda gulgula, *Franklin.*
2 Osmotreron bicincta, *Jerdon.*
5 Do. Pompadoura, *Gmel.*
2 Carpophaga sylvatica, *Tickell.*
2 Turtur Suratensis, *Gmel.*
2 Chalcophaps Indica, *Linn.*
3 Gallus Stanleyi, *Gray.*
4 Galloperdix Bicalcarata, *Forst.*
1 Ortygornis Pondiceriana, *Gmel.*
1 Excalfactoria Chinensis, *Linn.*
4 Turnix Taigoor, *Sykes.*
2 Charadrius Fulvus, *Gmel.*
4 Ægialites mongolicus, *Pallas.*
1 Do. Dubius, *Scop.*
3 Lobivanellus Indicus, *Bodd.*
1 Œdicnemus crepitans, *Temm.*
1 Strepsilas interpres, *Linn.*
2 Gallinago stenura, *Temm.*
3 Rhynchæa Bengalensis, *Linn.*
2 Actitis hypoleucos, *Linn.*
2 Hydrophasianus chirurgus, *Scop.*
1 Porphyrio poliocephalus, *Lath.*
7 Gallinula phœnicura, *Forster.*
1 Gallicrex cristatus, *Lath.*
1 Porzana fusca, *Linn.*
2 Rallina Zeylonica, *Gmel.*
3 Ardea purpurea, *Linn.*
3 Buphus Coromandus, *Bodd.*
3 Ardeola Grayii, *Sykes.*
1 Butorides Javanica, *Horsf.*
3 Ardetta flavicollis, *Lath.*
3 Do. cinnamomea, *Gmel.*
2 Nycticorax Griseus, *Linn.*
1 Goisachius melanolophus, *Raffles.*
2 Anastomus oscitans, *Bodd.*
2 Dendrocygna Javanica, *Horsf.*
3 Podiceps Philippensis, *Bonn.*
1 Sterna nigra, *Linn.*
4 Hydrochelidon Leucoparcia, *Natt.*
1 Thalasseus cristatus, *Stephens.*
1 Do. Bengalensis, *Lesson.*

THE large collection of birds which the Society possesses at the present time, and which the foregoing catalogue, numbering in all 154 different birds, fully testifies to, may perhaps be considered to possess sufficient interest as a public exhibition, and an important branch of the Museum, to warrant a few remarks on the distribution, throughout the Island, of the different species composing it. I therefore venture to submit for the Society's perusal the following notes, which are chiefly the result of four and-a-half years' labour among my feathered friends in Ceylon. I have also availed myself of the experience of Messrs. Layard and Kelaart, and of Mr. Holdsworth, in cases where they have recorded birds from parts which I, myself, have not visited. I regret to say that my knowledge of what birds in particular are located in the Eastern Province proper is very limited, and therefore I fear that these notes will contain but little information concerning either the residents in or migrants to that part. It is a district which I have as yet only touched upon from the north and south, but neither myself nor either of the abovenamed gentlemen have ever collected in or explored that extensive and wildest of all Ceylon regions—the Friar's Hood and False Hood ranges, and the immediate south-lying flats, known as the "Park Country." It is here that more new species await discovery at the hands of some enterprising naturalist, and when they are found they will, I am confident, possess the additional interest of being, like Mr. Bligh's newly-discovered Arrenga and my Prionochilus, analogous to Malayan and not to Indian forms. Setting aside the Eastern Province however entirely, the distribution of species in the other great divisions of the Island is exceedingly interesting, and demonstrates in a remarkable manner how closely vegetation and features of soil are affected by climate, and how birds in their turn are influenced in their choice of habitat by that vegetation and the natural resources of sustenance which it affords them. The north-western and south-eastern districts, or the country surrounding Mannár and

Hambantoṭa, respectively, possess a similar avifauna, with the difference perhaps, that natatorial birds abound more in the latter than in the former, owing to the presence of large tanks in the Mágam and adjoining Pattus, but the list of insessorial birds in the two places is precisely the same: the great mountain zone districts are peculiar features lying as a dividing medium between them. Again, the damp hill-country of the south-west, and the vast forest-covered region of the north-east, lying between Anurádhapura and Trincomalee, possess the same birds, with the exception of one or two very local species, such as Temenuchus senex and Prionochilus Vincens, which are only located in the mountains of the former part; moreover, the south-western corner of the Island possesses scarcely anything in common with the adjacent lying hot and flat country of the south-east, the eastern slopes of the Kolonná and Morowak Kóralé mountains and their off-shoots, leading southwards to Mátara, acting as a barrier or dividing line beyond which, on either side, the typical forms of the two regions (Temenuchus senex, Rubigula melanictera, Prionochilus Vincens, &c., on the west, and Pyrrhulaunda grisea, Temenuchus pagodarum, Sarciophorus bilobus, &c., of the east) do not appear to pass. While on the subject of the south-west and its avifauna, it would be well to remark that it is somewhat noteworthy, that two species of "Ceylon" birds, *vide supra*, should only be found in that district, and this certainly would allow us to premise that others, as yet undiscovered members of our Fauna, may be confined solely to the hills of the Eastern Province. Lastly, there exists another region which, as the late Dr. Kelaart prophesied in his "Prodromus Faunæ Zeylanica" has proved to be "a distinct centre of creation" analogous to that of the correspondingly elevated zone of the Neilgherries in South India. I speak of Nuwara Eliya and its surrounding mountains. Doctor Kelaart referred generally to Zoology and Botany, but we have there, as far as birds even are concerned, three of the peculiar Ceylon species, Merula Kinisii, Arrenga Blighi, Brachypteryx Palliseri, and perhaps a fourth, Ochronella Nigrorufa (found also

on the Neilgherries), confined to the immediate vicinity of the sanatarium. Notwithstanding that this singular concentration of these restricted species to such a small area can be easily accounted for on the strength of their being peculiar to the Island, and the highest mountains about Nuwara Eliya being the only district of such an elevation, and therefore with the same cool climate, in the country, yet there is no parallel to it in the distribution of birds throughout the whole peniusular part of India, and it must therefore I think, be viewed as the most remarkable feature in the history of Ceylon birds. Students of our Ornithology are much indebted to Mr. Holdsworth, who, assisted by the most eminent Indian Ornithologists at home, has worked out, in his catalogue of Ceylon birds, published last year in the proceedings of the London Zoological Society, the right nomenclature of all our birds, and the history and authorship of all those species about which there was any doubt. He has shewn that several members of our old lists, such as Yungipicus gymnopthalmos, Tephrodornis affinis (Blyth), and Grauculus Pussillus (ibid), hitherto assigned to Ceylon only, are found in South India, and that one of our hill fly-catchers, Euymias serdida, Walden, on the other hand, as an inhabitant of the peninsula, is peculiar to this Island, and was hitherto confounded with E. melanops, Vigons; while again he has proved that a few species described as new by Layard and others, such as Butalis Muttui, Zoothera imbricata, are identical with the hitherto recorded from India, Alseonax terricolor and Oreocincla Neilgherrienses. It is a pity that this gentleman confined his labours and attention to the cultivated districts of the Western Province and the neighbourhoods of Mannár and Nuwara Eliya only, instead of exploring the Island to a greater extent, particularly in the south-west and east, and thereby acquiring a thorough knowledge of the distribution of our species; by so doing he would have rendered his catalogue much more valuable to the enquirer, and afforded much information as to where different birds were to be found. In the

following notes I have adopted Mr. Holdsworth's nomenclature, followed by Layard's and Kelaart's synonyms, used in the Annals and Magazine of Natural History for 1853-54, and the "Prodromus Faunæ Zeylanica" published in 1852.

1. SPILORNIS BACHA, *Dandin.*—The Crested Serpent Eagle, the "Ceylon Eagle" of some writers; Rájáli, *Sinh.* In young plumage, Spilornis Spilogaster, *Blyth*—vide Holdsworth, Catalogue Ceylon Birds, P. Z. S. 1872, No. 13. Hæmatornis Cheela, Layard, Annals Natural History, 1853, page 99, volume 12; Kelaart, Prodromus Faunæ Zeylanica, page 114.

Distributed throughout the whole Island up to the highest parts of the Central Province; common in all the coffee districts, and both in low wooded and the hill country of the south-west; numerous in the neighbourhood of Trincomalee, and occurs throughout the Eastern and Northern Provinces, affecting marshes and the borders of large tanks; scarce in the dry districts of the south-east.

2. HALIAETUS LEUCOGASTER, *Gmelin.*—The white-bellied Sea Eagle, Grey-backed Sea Eagle. Pontoætus Leucogaster—Layard, Annals Natural History, 1853, volume 12, page 100; Kelaart, Prodromus Faunæ Zeylanica, page 112.

Distributed round the whole coast of Ceylon, affecting chiefly mouths of large rivers, brackish lakes, salt lagoons, and large inland back waters; most numerous in the Hambantoṭa district, and on the chain of lagoons and lakes between Trincomalee and the Jaffna Peninsula; common at Jaffna and down the west coast to Puttaḷam; scarce in the south-west, occurring at the mouths of rivers and on brackish lagoons in that part; extends some distance up large rivers, but it is not found on inland tanks.

3. POLIOAETUS ICHTHYAETUS, *Horsf.*—The white-tailed Sea Eagle. Pontoactus Ichthyactus.—Layard, Annals Natural History, page 101, 1853; omitted from Kelaart's list, Prodromus Faunæ Zeylanica.

Numerous about tanks in the Eastern Province, on the north-eastern coast, and in the Vanni; frequents the salt lagoons and estuaries to the north of Trincomalee; occurs on the north-west coast (Holdsworth's Catalogue Ceylon Birds), rare on the south-east coast, but observed in the Hambantoṭa and Kataragama country. This species is nowhere so abundant as P. leucogaster.

4. HALIASTUR INDUS, *Bodd.*—Brahminy Kite; Brown-backed Kite; Rájáli, *Sinh.*

Abundant about most of the bays, mouths of rivers, salt lagoons, and brackish waters round the whole Island, affects in particular Galle

and Trincomalee harbours and the Jaffna lake, though not so numerous in the latter part as Milvus Govinda; frequents paddy lands in many districts far inland, and breeds sometimes as far as thirty or forty miles up large rivers.

5. MILVUS GOVINDA, *Sykes.*—Pariah Kite.

Numerous only about the Jaffna peninsula and down the west coast as far as Kalpitiya and Chilaw districts; extends sparingly to the south; pairs now and then seen in Galle and Mátara districts, but I have not observed it on the south-east coast. Affects Trincomalee harbour in the south-west monsoon, but leaves in the north-east.

Note.—It is strange that this Kite should be comparatively local in Ceylon, when it is so widely distributed round the Indian coast. I have seen it in no part of the Island so abundant as about the town of Jaffna.

6. TINNUNCULUS ALAUDARIUS, *Gmelin.*—Kestrel.

The Kestrel, which is a winter visitor to Ceylon, is found all round the coast wherever there are rocky cliffs, about which it always remains, roosting on the same spot the whole season. I did not observe it on the south-east coast, but it no doubt affects that part as well as Trincomalee, Jaffna, and all round the west coast to Galle, where an individual takes up its abode each year regularly at the high corner of the ramparts overlooking the sea. Arrives about first week in October, and leaves again as late as the 20th April in the extreme south. Layard says of this bird, Annals Natural History, 1853, page 102, "common in all open plains throughout the Island which are dotted with jungle." I conclude he means open plains along the sea border, as I have never observed it far inland; the only district where I should imagine it would be found at any distance from the sea, would be the Northern Province, south of Jaffna, and in the upper part of the Vanni.

7. MICRONISUS BADIUS, *Gmelin.*—The "Shikra," Indian Sparrow-hawk; Accipiter Badius—Layard, Annals Natural History, 1853, page 104; Kelaart, Prodromus Faunæ Zeylaniea, page 115.

Common throughout the low country on both sides of the Island; abundant in the north-east of the Province and in the south; extends into the Central Province up to 4,000 feet; occurs frequently in Dumbara.

8. ELANUS MELANOPTERUS, *Daud.*—The black-shouldered Kite; Layard, Annals Natural History, 1853, page 104.

Western Province, hill district of south-west and flat country of the south-east; occurs at Bópé and throughout the Rayigam and

Pasdun Kóralés; frequents citronella grass estates and open lands in the Galle district, more numerous however in the Kataragama country, and probably frequent throughout the Eastern Province. I did not observe it in the north-east, though Layard, *loc. cit.*, records it from Jaffna as one of our rarest Raptores.

9. CIRCUS SWAINSONII, *A. Smith.*—The Pale Harrier; Swainson's Harrier. Layard, Annals Natural History, 1853, page 104.

Local in distribution, common in parts. In the Southern Province on large tracts of paddy land and open hill sides near Galle, in parts of Tangalla and near Hambantota, and round the south-east coast generally ; in the north-west and about Trincomalee, where it is common.

Note.—The Harriers, which are all winter visitants to this country, arrive in September mostly in young plumage, and are more numerous some years than others.

10. CIRCUS CINERACEUS, *Mont.*—Montague's Harrier. Layard, Annals Natural History, 1853, page 105.

Inhabits open bushy plains in dry parts of the country, differing in its choice of habitat from the foregoing species, which frequents by choice marshy and paddy lands in company with Circus Œruginosus. Found about Colombo, but is rare; more numerous on the south-east coast, tolerably frequent in the Kataragama district.

11. ATHENE CASTANEONOTA, *Blyth.*—The Chesnut-winged Owl. Athene Castanotus, *Blyth*—Layard, Annals Natural History, 1853, page 105; also Kelaart, Prodromus Faunæ Zeylanica, page 110.

This little owl, which is our only raptoral bird peculiar to the Island, is local in its distribution. Inhabits both low and high country ; have seen it in Upper Dimbula ; common in the Knuckles district, where it is found about mountain streams at sunset; numerous in the south-west, particularly up the Gindurah; found about Colombo at times, frequenting also the Negombo districts. Recorded from Nuwara Eliya (Kelaart, Prodromus Faunæ Zeylanica, Natural History of Nuwara Eliya.)

12. NINOX HIRSUTA, *Temm.*—The brown Hawk-owl. Athene Scutellata, *Gray*—Kelaart, Prodromus Faunæ Zeylanica, page 110. A. Scutellata, *Raffles*—Layard, Annals Natural History, 1853, page 106.

This is the rarest owl. Found in the wooded districts round Bópé and Avisáwélla, also in the neighbourhood of Puttalam. I am unable to say whether it is found in the hills, but I have seen it once in the wooded country of the south-west.

13. EPHIALTES BAKKAMUNA, *Forster*.—The little-eared Owl. Ephialtes Lempigii, *Horsf.*—Layard, Annals Natural History, 1853, page 106; Kelaart, Prodromus Faunæ Zeylanica, page 116.

Numerous throughout all the low country, abundant in the neighbourhood of Galle; common round Colombo, also in the north; extends to considerable elevation in the hills. Frequents rows of trees in towns, church steeples, also bamboo thickets and low jungle, native gardens, &c.

14. SYRNIUM INDRANEE, *Sykes*.—The brown Wood Owl. Bacha Muna, *Sinh.*

Affects forest (Múkalána) in the low country and in the hills; ranges up to 5,000 feet in Central Province; found in the forests near Hanwella in the Western Province, also in all forests of the south-west of the Island; frequents the low jungle of the Mannár district. (Holdsworth's Catalogue Ceylon Birds, 1872, No. 27.)

Note.—It is as difficult to define accurately the range of Strigidæ and to note the particular districts they affect most, as it is to acquire a thorough knowledge of their economy. Their nocturnal habits lead to their being passed over in some instances by all but the most diligent observers, particularly if their notes are not well known. Until the past few years the Forest Eagle Owl of the South of India (Huhua Pectoralis, *Jerdon*) which has, of course, always been resident in this island, was not known to inhabit it, but since Mr. Bligh procured his specimens in the Central Province, a good many of the species have been either shot or seen. I met with it in the great forests of the north-east last January, and find that it inhabits the higher "Múkalána" all throughout the south-west.

15. CAPRIMULGUS ASIATICUS, *Latham*.—The Indian Night-jar.

Abundant in the scrubby country along the sea border at Trincomalee, also in all similar localities on the north and west coast, for instance, in the Cinnamon Gardens near Colombo; not so plentiful as the next species in the south; very plentiful in the jungles of Hambantota and in the Mágam Pattu.

16. CAPRIMULGUS ATRIPENNIS, *Jerdon*.—The black-winged Night-jar. Bassa, *Singhalese*, for this family as well as for small Owls. Caprimulgus mahrattensis, *Sykes* (erroneously).—Layard, Annals Natural History, 1853, page 166; Kelaart, Prodromus Faunæ Zeylanica, page 117. Vide Holdsworth, Catalogue Ceylon Birds, No. 46.

Numerous in the low country and subsidiary hill districts of the south-west (notably round Wakwella and Baddegama), in the

low jungles of the Hambantoṭa and Kirinda country, and tolerably plentiful in the north-east near Trincomalee; occurs sparingly in the Western Province, and almost absent from the North. (Layard, *loc. cit.*)—I presume he speaks of the Jaffna district.

Note.—This species, unlike the foregoing, perches much on trees; the male when uttering at sunset the remarkable note, so much heard in the south, is always perched on a branch of a tree.

17. CYPSELUS BATASSIENSIS, *Gray.*—The Palm Swift. Wahælayna, *Sinh.* Cypselus "Balassiensis," *Gray*—Layard, Annals Natural History, 1853, page 167. Kelaart, Prodromus Faunæ Zeylanica, page 117.

Equally numerous in all parts of the country, and extending into the hills to the elevations of Nuwara Eliya and Horton Plains. I observed it less numerous in the north-east monsoon about the neighbourhood of Kataragama than elsewhere, which may have been owing to their having been collected in other parts to breed. It ranges throughout the Morowak Kóralé, and other southern hills. Kelaart omits it from his list of Nuwara Eliya birds, Prodromus Faunæ Zeylanica.

18. DENDROCHILIDON CORONATUS, *Tickell.*—The Crested Swift. Macreptenyx, *Swainson*; M. coronatus—Layard, Annals Natural History, 1853, page 167; Kelaart, Prodromus Faunæ Zeylanica, page 117.

Resident all the year round in the south, but not always affecting the same localities; migratory to the Western Province in the north-east monsoon, occurs about Trincomalee at the same season, probably more numerous there in the other monsoon. Abundant generally in the vicinity of Galle; affects precipitous hill-sides and open clearings where there are dead trees, on which it perches much.

19. CORACIAS INDICA, *Linn.*—The Roller. "Jay" of Europeans.

Distributed throughout the low country, but very local in its habitat. I have never met with it in any part of the south-western hill-country. Most numerous about Jaffna and the "peninsula," and in the open country near the tanks throughout the north coast from Trincomalee to Anurádhapura. Near Colombo it occurs at Bópé, Pora, and many parts of the Rayigam Kóralé.

20. HARPACTES FASCIATUS, *Forster.*—The Trogon. Harpactes fasciatus, *Linn.*—Layard, Annals Natural History, 1853, page 171.

Throughout the whole Island where there is primeval forest or "Múkaláṇa;" abundant in such spots in the Rayigam Kóralé, being found near Hanwella, within twelve miles of Colombo; in all

the forests of the Gangaboḍa and Hinidum Pattus and Kukulu and Morowak Kóralés, as regards the south of the Island; throughout all the coffee districts and highest hills of the Central Province, and in the great forests betweeu the north road and Trincomalee.

21. PELARGOPSIS GURIAL, *Pearson.*—The Cape King-fisher, Buff-breasted King-fisher. Maha Pilihudna, *Sinh.*; vide Holdsworth's Catalogue Ceylon Birds, P.Z.S. 1872, No. 54; Halcyon Capensis, *Linn.*—Layard, Annals Natural History, 1853, page 171; Kelaart, Prodromus Faunæ Zeylauica, page 119.

Throughout the low country wherever there is water. In the Western Province it is found about Bolgoda Lake and up the Kalu Ganga; in the Southern Province it is abundant on the Gindurah and Nilwelle rivers, extending to the foot of the hills; numerous on all tanks of the Eastern Province and about all the swamps and inland waters of the Northern Province from Trincomalee to Anurádhapura; abundant about Batticaloa, according to Layard.

22. HALCYON SMYRNENSIS, *Linn.*—The Smyrna King-fisher, White-breasted King-fisher. Pilihudua, *Sinh.*—Layard, Annals Natural History, 1853, page 172.

Common throughout the low country, extending into the hills to 4,000 feet, and Kelaart includes it in his Nuwara Eliya list of birds (Prodromus Faunæ Zeylanica); abundant in the Western and Southern Provinces, occurring in the Morowak Kóralé sparingly, not so numerous in the south-east.

23. ALCEDO BENGALENSIS, *Gmelin.*—The Indian King-fisher, Little King-fisher. Pilihudua, *Sinh.*

Distributed throughout the whole Island, extending into the Central Province to the plains of Nuwara Eliya, very abundant about paddy fields, rivers and streams in the Western and Southern Provinces, and less numerous in the south eastern district; plentiful in the Northern Province and in the neighbourhood of Trincomalee; common close to Galle; believed may at times be seen on the rocks at the entrance to the Dutch Canal; occurs in Colombo lake in numbers.

24. CERYLE RUDIS, *Linn.*—The Pied King-fisher—Layard, Annals Natural History, 1853, page 172.

Numerous on canals, streams, and the stiller parts of rivers in the Southern Province, extending inland to the foot of the hills; tolerably frequent in the Western Province, at Kalutara, near Bentoṭa, on Bolgoḍa lake, and the like spots; found on the salt lagoons of the Hambantoṭa and Trincomalee districts. In the

south it is particularly numerous on the Gindurah as far up as the "Hayeock."

25. MEROPS PHILIPPENSIS, *Linn.*—The Blue-tailed Bee-eater. "Fly-catcher" of Europeans. Layard, Annals Natural History, 1853, page 173. Kelaart, Prodromous Faunæ Zeylanica, page 119.

Migratory to Ceylon, arriving at the beginning of September in the north, and reaching the south about the middle of that month. Spread throughout the Central Province up to 6,000 feet, at which elevation I have found it numerous near Pusselláwa and in the Knuckles; exceedingly abundant throughout the low country of the south-west and about the Fort at Galle; scarce in the Morowak Kóralé, and not plentiful in the south-east; tolerably numerous in parts of the Trincomalee country and in the extreme north. Kelaart records it from Nuwara Eliya in his list from that part. It is rare about Colombo. Leaves the south about the 1st of April, though stragglers remain some years as late as the middle of that month. Holdsworth also records it as very numerous at Aripo; says it leaves the north during the same month.

26. MEROPS VIRIDIS, *Linn.*—The Green Bee-eater.

This charmingly tame little bird is partial to certain districts of the low country, and does not extend into the hills. It prefers the dry and hot portions of the Island, is absent from the south-west, but exceedingly abundant from Tangalla round the south-east and east coasts to Trincomalee and the extreme north. It is more numerous in the neighbourhood of Hambantota than about Trincomalee, and is, I imagine, resident in that district throughout the year. Holdsworth says it is abundant at Aripo, and mentions it being seen sometimes about Colombo. I have not remarked it there.

27. MEROPS QUINTICOLOR, *Vieill.*—The Chesnut-headed Bee-eater.

Very local in its distribution. Affects the borders of rivers, in particular, in the south-west up to thirty or forty miles from the sea, but does not extend to an elevation of more than 1,000 feet. Notably numerous on the Gindurah, from where the banks become hilly to beyond the Hayeock, also on the Kaluganga to Ratnapura.

Note.—I confess I cannot look on this as a strictly hill species; it is very partial to rivers with hilly banks, and follows them up into or just to the foot of the mountains; although it has been found in the vicinity of Kandy, it must be far scarcer there than on the rivers of the south-west, where it breeds in numbers. When Layard says, Annals Natural History, 1853, page 174, "Whilst the two former frequent low open plains and are rarely,

if ever, seen in the elevated districts, the present species on the contrary affects the hilly forest region;" I cannot but think that he must have been mistaken in his identification. These remarks of a certainty do not apply to M. Philippinus, which I have found on all elevated patanas from the Knuckles to Upper Dimbula, in which localities I have never seen a sign of the Chestnut-headed bird. I do not think it extends above the elevation of Kandy. I have never met with it in the south-east, though it is found sparingly near the borders of jungle in the Trincomalee districts. Holdsworth records it in his catalogue from near Kandy.

28. TUCKUS GINGALENSIS, *Shaw.*—The Ceylon Horn-Bill. "Toncan" of Europeans. Kęndęṭta, *Sinh.*; Buceros apud, *Shaw.* Buceros Gingalensis, *Shaw.*—Layard, Annals Natural History, 1854, volume 13, page 260. Kelaart, Prodromus Faunæ Zeylanica, page 126.

Affects all forests on the south-west and north-east, the high jungle of the Morowak and Kukulu Kóralés and all parts of the Central Province up to 2,000 feet, likewise the jungle in the north-west, according to Holdsworth; but I did not observe it in the analogous district of Kataragama, though it is possible it inhabits the forests along the rivers of that part. It is numerous near Galle in the Kottowe Múkalána and in the great Opaté and Uḍugama, as well as in the Morowak Kóralé and Hinidum forests; also common in the jungles between Anurádhapura and Trincomalee, and probably in the wild country between Ratnapura and Avisáwélla.

29. LORICULUS INDICUS, *Gmelin.*—Ceylon Lorikeet. Girawa Malitehia, *Sinh.* Vide Holdsworth's Catalogue Ceylon Birds, P. Z. S., No. 66; Loriculus Asiaticus, *Lath.*—Layard, Annals Natural History, 1854, page 261; Kelaart, Prodromus Faunæ Zeylanica, page 127.

Very abundant in the south-west (which part is its head quarters) in the cocoanut districts throughout all the cultivated parts of the interior, and also in the forests at certain seasons when various species of timber trees are in flower; common in the Central Province, about wooded patanas in the Pusselláwa, Dumbara, Knuckles, and other districts of similar elevation. Occurs in the Pasdun and adjoining Kóralés in the Western Province, but not so abundantly as in the south. Layard traced it as far east as Hambantoṭa, but I believe it is absent from the country beyond that, as also from the Eastern Province. I did not meet with it in the districts between Anurádhapura and Trincomalee, where I found so many of our peculiar Ceylon birds (*vide Note* on Phænicophous phyrrhocephalus), but I should not be surprised if it were added to my list from that locality before long.

30. PALÆORNIS ALEXANDRI, *Linn.*—The red-shouldered Parokeet. Loku Girawá, *Sinh.*—Layard, Annals Natural History, 1854, Volume 13, page 262.

Appears to be chiefly confined to the east coast, always abundant in the Batticaloa country, and at seasons near Trincomalee; occurs as a straggler in the low country from Pánaduré down to Mátara, but I did not meet with it in the south-east.

31. PALÆORNIS TORQUATUS, *Bodd.*—The Rose-winged Parokeet. Rana Girawá, *Sinh.* Palæornis torquatus, *Briss.*—Layard, Annals Natural History, 1854, page 262; Kelaart, Prodromus Faunæ Zeylanica, page 127.

Very abundant round Trincomalee, particularly about Tampalakámam; numerous near Hambantota and about Tangalla; very abundant down north-west coast (Puttalam, Chilaw, &c.) According to Layard, this Parokeet frequents maritime districts for the most part. I have not met with it in the interior, it is a low-country bird.

32. PALÆORNIS ROSA, *Bodd.*—Purple-headed Parokeet. Palæornis Cyannaphalus, *Linn.*—Layard, Annals Natural History, 1854, page 264. Kelaart, Prodromus Faunæ Zeylanica, page 127.

South-western and central hill districts. Common all through the low wooded country of the south-west, up to highest parts of Morowak Kóralé, where however it is less numerous than at lesser elevations; abundant about the patanas of the Knuckles, Pusselláwa, and Deltota districts, and in fact all through the Central Province up to 3,000 feet. Absent from the south-east.

33. PALÆORNIS CALTHROPÆ, *Layard.*—Ceylon Parokeet. Alloo Girawá, *Sinh.*

Note.—Kelaart seems to have reversed the English names of this and the last species (Prodromus Faunæ Zeylanica, page 127) when he calls this bird the "Purple-headed Parokeet," and the former the "Ashy-headed Parokeet."

Ranges from the hills north of Kandy to the subsidiary ranges at the Upper Gindurah, down to 700 or 800 feet above the sea; this latter is the lowest point at which it is found. Common round Kandy, in the valley of Dumbara, and about the lower patanas in the Knuckles and Pusselláwa districts; exceedingly abundant in the Sigha Rájah forests and on the south of the Kukulu Kóralé (the head-quarters of so many "Ceylon" birds), and tolerably abundant in parts of the Morowak Kóralé. Kelaart notes it at Nuwara Eliya (List of Nuwara Eliya Birds, Prodromus Faunæ Zeylanica.)

34. MEGALAIMA ZEYLANICA, *Gmelin.*—The Ceylon Barbet. Koṭṭóruwá, *Sinh.*; Megalaima caniceps, *Frank*, (the Indian species);—Layard, Annals Natural History, 1854, page 446.

Very abundant throughout most parts of the low-country, more so in the south than the north however; extends up to about 2,000 feet in the Central and Southern Provinces. I did not find it in the Kataragama districts, nor did Mr. Holdsworth in the north-west; it is however tolerably numerous in the north-eastern jungles between the Central road and Trincomalee. It is more abundant some little distance inland from the vicinity of Colombo than anywhere else.

35. MEGALAIMA FLAVIFRONS, *Cuvier.*—The yellow-fronted Barbet; Koṭṭóruwá, *Sinh.*

Southern, Western, and Central Provinces. Occurs in the Rayigam Kóralé, some little distance from Colombo, and ranges into the Central Province up to 3,000 feet, being particularly abundant in all the coffee districts and patanas of that part; but, common as it is there, it is nowhere so numerous as in the Kukulu Kóralé, Siṅha Rájah, and Uḍugama forests of the Southern Province. Those magnificent reserves of timber too low for coffee cultivation, and which sweep up and down the hills and valleys of that part, stretching away for miles in an unbroken sea of green, without scarcely a kurakkan clearing to arrest the eye, are the choice resorts of most of our peculiar Ceylon species, and there they are found in greater abundance than elsewhere. M. Flavifrons inhabits all the hills on the banks of the Gindurah down to Kottowe forest, ten miles from Galle.

36. XANTHOLÆMA INDICA, *Lath.*—The red-breasted Barbet, "Copper-smith" of Europeans; Megalaima Philippensis, *Briss.*—Layard, Annals Natural History, 1854, page 447; Kelaart, Prodromus Faunæ Zeylanica, page 127.

Very abundant throughout the north, extending beyond Trincomalee towards Batticaloa on the east, and down to the forests between Kurunégala and Puttaḷam on the west. It is rare in the latter district and very numerous in both jungle and cultivated country between the Central road and Trincomalee. Holdsworth records it as common at Aripu.

37. XANTHOLÆMA RUBRICAPILLA, *Gmelin.*—The red-headed Barbet, "Copper-smith" in the Western Province. Megalaima rubricapilla, *Gmelin.*—Layard, Annals Natural History, 1854, page 448; Kelaart, Prodromus Faunæ Zeylanica, page 127.

Most parts of the low-country, except in the dry and hot districts of the south-east and north-west, extending into the hills to about 1,000 feet. Layard records it from Batticaloa and Jaffna. The

Western and Southern Provinces are however its head quarters, in all districts of which it is exceedingly abundant; occurs throughout the wooded country of the north-east, but is not plentiful there.

38. YUNGIPICUS GYMNOPTHALMOS, *Blyth.*—The Pigmy Wood-pecker. Layard's Wood-pecker. Picus Gymnopthalmos, *Blyth.*—Layard, Annals Natural History, 1854, page 448. Kelaart, Prodromus Faunæ Zeylanica, page 128.

Western and Southern Provinces. In the Colombo district it is found some little distance inland, particularly about the wooded country round Hanwella; in the Southern Province it is more numerous, and affects all the low hill-country up to 2,000 feet in the Morowak Kóralé. In the Central Province I have traced it up to 2,000 feet in the Pusselláwa coffee districts.

39. CHRYSOPHLEGMA CHLOROPHANES, *Vieill.*—The Southern Yellow-naped Woodpecker; Gecinus Chlorophanes, *Vieill.*—Layard, Annals Natural History, page 448; Kelaart, Prodromus Faunæ Zeylanica, page 128.

Sparingly distributed throughout the north-east, west, and south-west of Ceylon, and extending into the hills, where Kelaart procured it as high as Nuwara Eliya. Found within ten miles of Colombo; tolerably frequent up the valley of the Gindurah, and rare in the north-east near Trincomalee. It most likely affects the Anurádhapura, Vanni, and the country to the east of the central mountain zone.

40. BRACHYPTERNUS CEYLONUS, *Forster.*—The Ceylon red Woodpecker; Kéralá, *Sinh.*

Widely distributed throughout the low-country of the southern half of the Island and in the north-east, and extending into the hills up to 3,000 feet or more in the Pusselláwa and Knuckles districts. The headquarters of this Woodpecker are from a little south of Colombo round the south-west to Mátara; in this locality it is exceedingly abundant, especially in the cocoanut lands of the maritime districts. I did not observe this species as frequent in the Morowak Kóralé as I should have expected.

41. BRACHYPTERNUS PUNCTICOLLIS.—The Lessen Golden-backed Woodpecker. Vide Holdsworth, Catalogue Ceylon Birds, P. Z. S., 1872, No. 73, *bis.*

Jaffna peninsula and Vanni district, and in the maritime districts of the north-east. I found this Woodpecker near the sea coast in the neighbourhood of Trincomalee, and likewise in the forests between the Central road and that place; it is nowhere common, unless the bird mentioned by Layard under the name of B. Aurantius, as being so numerous in the Jaffna peninsula, be this species.

Note.—Mr. Holdsworth says with justice, *loc. cit.*: "A further examination of the golden-backed Woodpeckers of Ceylon appears desirable, as the species generally met there is more likely to be B. Puncticollis, common in Southern India, than Brachypternus Aurantius, which has a more northerly range." I think that it is extremely probable that future investigation will shew that the Jaffna bird, spoken of by Layard, as so numerous there, is the former species and not the latter, as noted in his Catalogue, Annals Natural History, 1854, page 448, under the name of B. Aurantius. I received two specimens from Doctor Ondaatje in 1870, which were shot in the peninsula, and presented by him to the Society's Museum, and these proved to be B. Puncticollis, and not B. Aurantius.

42. CENTROPUS RUFIPENNIS, *Illiger.*—The red-winged Ground Cuckoo, "Jungle Crow." Eṭi-kukulá, *Sinh.* Centropus Philippensis, *Cuvier.*—Layard, Annals Natural History, 1854, page 450. Kelaart, Prodromus Faunæ Zeylanica, page 128.

Numerously distributed in the low-country, and extending up to 3,000 feet in the central zone and in the Morowak Kóralé. Kelaart has it in his list of Nuwara Eliya birds (Prodromus Faunæ Zeylanica.) This Cuckoo is specially numerous throughout the Western Province, among the low wooded hills and cultivated lands of the south-west, and in the maritime districts of the north-east. Holdsworth found it once even in the north-west about Aripu. It is also an inhabitant of the jungles on the south-east coast.

43. POLYPHASIA PASSERINA, *Vahl.*—The Plaintive Cuckoo. Cuculus apud, *Blyth*, in his Catalogue, Birds in Asiatic Society's Museum. Cuculus tenuirostris, *Gray.*—Layard, Annals Natural History, 1854, page 453; Kelaart, Prodromus Faunæ Zeylanica, page 129.

Migratory to Ceylon, appearing, according to Layard, about Jaffna in February, and in the north-east (about Aripu), according to Holdsworth, in January. They were however plentiful in the neighbourhood of Trincomalee in October last, so that they would appear to frequent the eastern side of the Island at an earlier date than the entrance north. Particularly abundant in the Northern and Eastern Provinces and south-eastern districts; frequents the Euphorbia jungles about Hambantoṭa in numbers. It is rare in the south-west and likewise in the Western Province.

44. SURNICULUS DICRUROIDES, *Hodgson.*—The Drongo tailed Cuckoo. Omitted from both Layard and Kelaart's lists.

Inhabits inland jungles in the Western and Northern Provinces (Trincomalee district), and has been procured in the lower hills

near Kandy, (Holdsworth, Catalogue Ceylon Birds.) I have not met with it either in the south-western hills or in the low-country of that part; but it probably occurs on the south-east coast in the jungles there. It occurs rarely in all these localities. Also found as near Colombo as Kóṭṭé, and has been procured in several places in the Héwágam Kóralé and in the Kurunégala district. All examples that have been brought to me, or that I have myself shot, have occurred in the north-east monsoon. If it is resident in Ceylon, which I doubt, it is most probably migratory from the eastern side during that season.

44 *bis.* Coccystes Jacobinus, *Bodd.*—The Crested Cuckoo. Oxylophus Serratus, *Spars.*—Kelaart, Prodromus Faunæ Zeylanica, page 128. Oxylophus Melanoleucos, *Gmelin.*—Layard, Annals Natural History, 1854, page 451.

Abundant in the north and south-east, where the country is covered with low jungle; sparingly distributed through the low-country of the south-west; occurs in the Trincomalee district in the north-east monsoon; it is decidedly migratory to the south-west during that season. It extends into the hills, being found in Dumbara.

45. Eudynamis Honorata, *Linn.*—The Koel; Kohá, Kavadi-kohá, *Sinh.* Eudynamis Orientalis, *Linn.*—Layard, Annals Natural History, 1854, page 451; Kelaart, Prodromus Faunæ Zeylanica, page 129.

Very numerous in the south-west, where it is resident all the year round; common in the Hambantoṭa and Trincomalee districts during the north-east monsoon; tolerably plentiful in the Western Province, where I have procured it in the south-west monsoon not far from Colombo. I am not aware that this species extends to any considerable elevation into the hills.

Note.—Holdsworth says (Catalogue Ceylon Birds, No. 88) that he never met with this bird after April, and that he believes it to be "a true migratory bird." This, as it appears from the above distribution, is erroneous. I have shot it in the Galle district at the end of June, and seen it during the whole of the south-west monsoon. It is possible that it may, like some few of our birds, notably Dendrochelidon Coronatus and Tephrodorius Pondiceriana, migrate from the south to the north of the Island at certain seasons.

46. Phœnicophæus Pyrrhocephalus, *Forster.*—The red-faced Malkoha. Mal Kéndeṭṭá, *Sinh.*

This rare and beautiful bird I have discovered lately to have a much more extended range in Ceylon than has hitherto been supposed. It inhabits the high tree jungles and forests situated some distance

inland in the Western Province, those of the south-west from Baddégama to the foot of the hills, and the vast stretches of timbered country between the Northern road and Trincomalee. I have never seen or heard of any examples of this Cuckoo from the Central Province or southern hills, and am therefore of the opinion that it is exclusively confined to the low-country.

Note.—The discovery that I made last January of this and other Ceylon birds hitherto only recorded from the Southern and Central Provinces, such as Oreocincla spiloptera, Chrysocolaptes Stricklandi, Drymocataphus fuscicapillus, and the present species, in the northern forests between Anurádhapura and Trincomalee, very agreeably surprised me, and it only shews how imperfectly the more remote parts of the Island have been worked, and how much information as regards some peculiar Ceylon birds there is yet in store for the persevering naturalist.

47. ZANCLOSTOMUS VIRIDIROSTRIS, *Jerdon.*—The green-billed Malkohá. Mal-kohá, *Sinh.*—Layard, Annals Natural History, 1854, volume 13, page 453; Kelaart, Prodromus Faunæ Zeylanica, page 129.

Widely distributed throughout the low-country; tolerably frequent in the south-west in low, thick, scrubby jungle near the sea (Watering Point, &c.); abundant in the districts of the south-east, also in the maritime districts near Trincomalee, and, according to Holdsworth, in the neighbourhood of Aripu and Mannár. It occurs, but not very frequently, in the Western Province.

48. NECTAROPHILA ZEYLONICA, *Linn.*—The yellow-breasted Honey-eater. "Sunbird," "Humming bird" of Europeans; Leptocomo apud Cabanis, Nectarina Zeylonica, *Linn.*—Layard, Annals Natural History, 1853, page 175; Kelaart Prodromus Faunæ Zeylanica, page 119.

Found in abundance in all parts of the Island (except the north-west, where Holdsworth and Layard did not observe it) up to 4,000 feet in the Central Province. Most abundant in the Western and Southern Provinces; tolerably numerous all throughout the north-east up to Jaffna; found on all patanas of the coffee districts, and frequents the forests of the low-country when certain trees are in flower.

Note.—Layard, *loc. cit.*, remarks that Nectarina minima replaces this species in the north. It is not clear what part he writes of, except it be the north-west. I did not meet with it anywhere in the Trincomalee district, nor have I even been fortunate enough to procure a specimen in Ceylon, so that I imagine it is very rare. N. Zeylonica is common enough about the Naval Port.

49. ARACHNECHTHRA LOTENIA, *Linn.*—The Long-billed Honey-eater, Purple Honey-eater, "Humming bird" of Europeans.

Equally widely distributed with the above, but not so common in the hills; abundant in the Western and Southern Provinces; not so numerous in the Hambantoṭa country or in the north-east.

Note.—It is singular that the other species of this genus, A. Asiatica, should be almost absent from the south-west, where its place is taken by the last named, when it is so common on either side of that district, viz., in the Western Province and in the south-east.

50. DENDROPHILA FRONTALIS, *Horsf.*—The Creeper.—Layard, Annals Natural History, 1853, volume 12, page 176.

Distributed throughout all the hill districts, from Nuwara Eliya, where Kelaart and Holdsworth procured it, to the low-country, in which it occurs sparingly and at uncertain times. It is very common in the Udugama and Morowak Kóralé forests as well as in the central mountains.

51. UPUPA NIGRIPENNIS, *Gould.*—The Hoopoe. Upupa Senegalensis, *Swains.*—Layard, Annals Natural History, 1853, page 174; Kelaart, Prodromus Faunæ Zeylanica, page 119.

Abundant in the north-west (Aripu district) in the winter months, according to Holdsworth; common in the Jaffna peninsula, where I found a pair breeding in January; abundant in the Kataragama district in the north-east monsoon, where it frequents the edges of the scrubs surrounding the salt lakes. It is rare in the Western Province.

52. HEMIPUS PICATUS, *Sykes.*—The little Pied Shrike.

Distributed throughout the low-country of the Western, Southern, and part of the Northern Provinces, and likewise extending into the hills of the Central Province to the highest altitudes. The only part of the low-country where it is common is among the woods and low hills of the Southern Province, becoming still more abundant in the intermediate forests of the Gindurah. It is found all through the Kukulu and Morowak Kóralés, and is common in all districts in the central zone that I have visited. It is rare about Colombo, affecting the wooded country near Hanwella, and it is sparingly located in the forest country between Trincomalee and the central road. It affects the finer and more verdant strips of jungle along the rivers of the south-east coast. Layard records it from Jaffna.

53. VOLVOCIVORA SYKESII, *Strickland.*—The lesser Cuckoo Shrike. Campephaga Sykesii, *Strick.*—Layard, Annals Natural History, 1854, page 128; Kelaart, Prodromus Faunæ Zeylanica,

omitted; vide Holdsworth, Catalogue Ceylon birds, P. Z. S., 1872, No. 106, as to female.

Found throughout all the low-country, and extending into the Central Province and southern hills to an elevation of 3,000 feet; rare in the Western Province, where it appears confined to certain districts; common in the south-west up the valleys of the Gindurah and its tributaries, plentiful on the south-east coast, abundant in the bushy lands surrounding some of the salt lakes of the north-east, and, according to Holdsworth, very common in the north-west (Aripu.)

Note.—My experience of the plumage of the female of this bird accords with that of Mr. Holdsworth, *loc. cit.* I have never obtained or seen a single example with the black head and neck.

54. GRAUCALUS LAYARDI, *Blyth.*—The large Southern Cuckoo. Campephaga Macei, *Lessen.*—Layard, Annals Natural History, 1854, page 128; Graucalus Pussellus, *Blyth.*

A rare bird in Ceylon; Layard mentions it as found in the Southern Province, Annals Natural History (*loc. cit.*), but I have never yet met with it here. It occurs in the Western Province between Colombo and Ratnapura, and is likewise procured now and then in Dumbara.

55. PERICROCOTUS FLAMMEUS, *Forster.*—The Scarlet Minnivet. "Fly-catcher" of Europeans. "Sultan" of Coffee planters.—Layard, Annals Natural History, 1854, volume 13, page 127; Kelaart, Prodromus Faunæ Zeylanica, page 123.

Widely distributed, inhabiting the hills in numbers and descending into the low-country in some parts, though not occurring near the sea. Abundant in the Knuckles and Pusselláwa districts, affecting mostly the high jungle in "mukalana," and very numerous in all the fine Southern forests. Holdsworth says it is abundant at Nuwara Eliya, where however Kelaart did not seem to have observed it. I have not met with it nearer Colombo than the small tract of forest at Poré, where the Trogon is also common. It is found in the north-eastern forests.

56. PERICROCOTUS PEREGRINUS, *Linn.*—The little Minnivet. Layard, Annals Natural History, 1854, volume 13, page 127; Kelaart, Prodromus Faunæ Zeylanica, page 123.

Common throughout the Island from the maritime districts up to 3,000 feet, according to my observation, and extending in the north-east monsoon up to Nuwara Eliya, where Holdsworth found it plentiful, and from where it is recorded in Kelaart's list, *loc. cit.* It is common at all seasons in the Galle district, and I have met with it in the Fort at Jaffna.

57. ARTAMUS FUSCUS, *Vieill.*—The Wood Swallow. Layard, Annals Natural History, 1854, volume 13, page 128; Kelaart, Prodromus Faunæ Zeylanica, page 124, also gives in addition, by some mistake, A. Leucorhynchus, a Philippine Islands species.

Abundant in many localities of all parts of the low-country, notably round the Bolgoḍa and Pánaduré lakes in the north-east monsoon, up the valley of the Gindurah at all seasons, and about Trincomalee in the winter season. Rare about Colombo and common in the north-west, according to Holdsworth. It does not appear to extend far inland, being found mostly along the sea border.

58. LANIUS CRISTATUS, *Linn.*—The Rufous Shrike. "Butcher bird" of Europeans. Lanius superciliosus, *Linn.*—Layard, Annals Natural History, 1854, page 130; omitted from Kelaart's list, Prodromus Faunæ Zeylanica.

Although Layard does not mention it, I am sure this bird is migratory in the north-east monsoon to Ceylon. Holdsworth and myself have only procured it in that season. Abundant on all dry, bushy, open lands throughout the low-country, particularly so at Hambantoṭa and parts of the south-west in the vicinity of Galle, near Trincomalee, and according to Holdsworth, at Aripu. I have found it in patanas in all the coffee districts, and Mr. Holdsworth obtained it at Nuwara Eliya. It sometimes remains in the Southern Province as late as the last week in April.

59. TEPHRODORNIS PONDICERIANA, *Gmeln.*—The Wood Shrike, Tephrodornis affinis, *Blyth.* (Vide Holdsworth, Catalogue Ceylon Birds, P. Z. S., 1872.) Tephrodornis affinis, *Blyth.*—Layard, Annals Natural History, 1854, page 131; Kelaart, Prodromus Faunæ Zeylanica, page 124.

Resident all the year round in the south of the Island, and appears to migrate to the north and west in the north-east monsoon; common in the valley of the Gindurah, also in the Western Province, and at Trincomalee in the north-east monsoon; likewise on the south-east coast at the same season. I have never seen it at Colombo in the south-west monsoon, nor has Mr. Holdsworth observed it in the north-west during the prevalence of that wind.

Note.—The movements of this and some few other birds in our list, are extremely puzzling; they would seem (these apparently adventuresome individuals) to move in part from the south, where they are resident throughout the year, to the north and west in the face of the north-east monsoon, or else those we have here do not migrate to the east during the south-west monsoon, finding shelter enough from the wind among the countless little hills of which this corner of the Island is composed, and hence are stationary here at all seasons, whereas their congeners, inhabiting the

north and west, are driven from those more exposed parts to the other side of the Island, and return again with the influence of the north-east monsoon. If this latter is the correct hypothesis, and I am inclined to think it is, no migration takes places at all up the west coast in the north-east monsoon from this district, those parts being supplied only from the eastern side; but I regret to say my knowledge of what species frequent the Eastern Province from May until October is not sufficient to enable me to arrive at any definite conclusion in the matter.

60. DISSEMURUS LOPHORHINUS, *Vieill.*—The Ceylon crested Drongo. "Kaputu báale" Sinhalese name for all the family. Dicrurus Edolifornis, *Blyth.*—Layard, Annals Natural History, 1854, page 129; Kelaart, Prodromus Faunæ Zeylanica, page 124.

Exclusively confined to forests and has its head-quarters in the south-west, where it is found in the "Mukalana" up all the lower hills up to 3,000 feet or more in the Siṅha Rájah ranges and in the Morowak Kóralé; occurs also in the jungles of the Héwágam and Kuruwiṭi Kóralés. Layard procured it at Ambaganuwa, but I did not meet with it in the coffee districts of the Central Province, and therefore I would put it down as one of the most locally distributed birds we have.

61. BUCHANGA LECOPYGIALIS, *Blyth.*—The Ceylon Drongo "King Crow" of Europeans.

Confined to the Western, Central, and Southern Provinces; very abundant all through the hilly country of the south-west, affecting cultivated lands in the valleys, clearings, copses, &c. I found it in one or two of the coffee districts at an elevation of 3,000 feet, and I met with more examples in the Pupuressa district than elsewhere to the south of Kandy.

62. MYIALESTES CINEREO CAPILLA, *Vieill.*—The grey-headed Fly-catcher. Cryptolopha Cinereo capilla, *Vieill.*—Layard, Annals Natural History, 1854, page 127; Kelaart, Prodromus Faunæ Zeylanica, page 123.

An inhabitant of the upper hills of Ceylon. I have failed to find this little bird anywhere out of the Central Province, but in the higher parts of the Morowak Kóralé. In India, Jerdon says that it visits the plains in the cold weather, but however it must be looked upon as strictly a hill species. It is abundant all through the coffee districts down to about 3,500 feet, affecting especially the edges of the forests above the estates. Holdsworth has it as very common at Nuwara Eliya.

63. LEUCOCERCA AUREOLA, *Lesson.*—The White-fronted Fan-tail. Leucocerca compressisostris, *Blyth.*—Layard, Annals

Natural History, 1854, page 126; Kelaart, Prodromus Faunæ Zeylanica, page 123. Leucocerca Albofrontata, *Franklin.*—Holdsworth, Catalogue Ceylon Birds, P. Z. S. 1872, No. 119.

A rare species in Ceylon, being found sparingly here and there, both in the low-country and Central Province, up to 3,000 feet. It occurs in the south-west, the specimen in the Museum having been shot at Mátara, and I have procured it at Baddégama; frequent about tanks in the south-eastern Province, affecting the magnificent tamarind trees which grow on those spots. I have seen it in the Knuckles in November, and Mr. Neville writes of some species of this genus (J., R. A. S., C. B., 1867-70) inhabiting the neighbourhood of Nuwara Eliya, but whether it be this bird or L. fuscoventris, is not as yet quite clear.

64. TCHITREA PARADISI, *Linn.*—The bird of Paradise Fly-catcher. "Bird of Paradise" of Europeans. "Gini-hora," *Sinh.* (in the red stage) "Redi-hora (in the white stage). Layard, Annals Natural History, 1854, volume 13, page 136; Kelaart, Prodromus Faunæ Zeylanica, page 123.

Migratory to Ceylon in the north-east monsoon, very numerous in the north-east about Trincomalee as early as the first week in October; in the Western and Southern Provinces at the end of that month. In the latter district it is abundant until March, particularly on the tanks of the Gindurah as far as the "Haycock;" I found it on the rivers of the south-east in March.

65. ALSEONAX LATIROSTRIS *Raffles.*—The Brown Fly-catcher. Butalis Latirostris, *Raffles.*—Layard, Annals Natural History, 1854, page 127; Kelaart, Prodromus Faunæ Zeylanica, page 123.

A winter visitant to Ceylon, and distributed throughout all parts of the low-country and the hills up to 4,000 feet. It is nowhere numerous, isolated examples being now and then met with in the season, affecting detached clumps of trees, native gardens, the edges of woods, and such like spots.

66. CYORNIS JERDONI, *G. R. Gray.*—The Blue Red-breast. omitted from Layard and Kelaart's lists, but perhaps C. Rubeculoides, *Vigors.*—Layard, Annals Natural History, 1854, page 125, as it is doubtful what species he wrote of at the time.

Occurs plentifully in forests in the Western Province (Héwágam Kóralé) where it breeds; numerous in the jungles round Trincomalee, even close to the sea, and in the forests between the Central road and that place; common in the hill forests of the south-west, but not found in the maritime districts of that part.

Note.—The bird found in the Southern Province has more blue at the chin and along the side of the throat than my Western and Northern Province examples, corresponding in fact to the description Holdsworth gives (Catalogue Ceylon Birds, P. Z. S. 1872, No. 125.) of the peculiarity in the throat, of Ceylon examples of C. Rubeculoides. I however have examples of this species from the north with the entire blue throat and not with "the orange colouring of the breast running up the centre" of it. Can there be a third species peculiar to the Island, which has been mistaken for C. Rubeculoides, inhabiting the forests of the south-western hills?

67. PITTA BRACHYURA, *Jerdon.*—The Pitta. The Short-tailed Ground Thrush; "Avichiyá, *Sinh.*"

Migratory to Ceylon, arriving here in September, distributed over the whole Island up to Nuwara Eliya, and almost equally common in all parts. It is perhaps less numerous in the hills and in the cultivated parts of the Westeru Province than in the low jungles of the south-west, north-east, and south-east. In the neighbourhood of Hambantoṭa and Trincomalee I have found it more abundant than in this district. It seems especially fond of the low Euphorbia scrub in the Kataragama district.

68. OREOCINCLA SPILOPTERA, *Blyth.*—The Spotted Mountain Thrush.

I have lately discovered this bird to have a much more extended range than hitherto supposed. It is distributed throughout parts of the Central Province, not mounting as high as Nuwara Eliya according to Holdsworth, over the Morowak and Kukulu Kóralés, and occurs plentifully in places in the Northern Province in the north-east monsoon. I met with several in one spot in the splendid forests on the road from Trincomalee to Anurádhapura. It doubtless occurs in the low-hill forests of the Gangaboḍa Pattu in the Galle district. I have once or twice got a glimpse of a bird along the rocky streams of those jungles which could have been no other than this species It is, as regards the Central Province, especially common in Dumbara.

69. ALCIPPE NIGRIFRONS, *Blyth.*—The Ceylon Wren-babbler. Baṭṭichchá, *Sinh.* Layard, Annals Natural History, 1853, volume 12, page 269.

Numerous in jungles all over the Island, except perhaps the dry country of the north-west (Aripu), where I observe Mr. Holdsworth did not find it. It is however abundant in parts of the Trincomalee district, and likewise occurs (though not in jungle near the sea) in the neighbourhood of Hambantoṭa and Kataragama. In the Central Province it is numerous up to the highest points, and it is especially abundant in the bamboo thickets of the low-

country near Galle, becoming perhaps a little less plentiful in the Morowak Kóralé and higher parts of the Hinidum Pattu. It is found close to the Cinnamon Gardens, as regards Colombo, and is numerous in all the woods and jungles of the Western Province.

70. DUMETIA ALBOGULARIS, *Blyth.*—The White-throated Wren-babbler; "Pig Bird" of Europeans in India; Baṭṭichchá, *Sinh.*—Layard, Annals Natural History, 1853, volume 12, page 272.

Great mistakes have been made about the range of this babbler owing to its shy and skulking habits. I have discovered it to be widely distributed throughout the Island and in some localities common, although Layard remarks, *loc. cit.*, "confined to the vicinity of Colombo," and Holdsworth (Catalogue Ceylon Birds, P. Z. S. 1872, No. 138) says that he only saw it in the vicinity of the Cinnamon Gardens. It appears, it is true, to be rather numerous in that particular locality, but it occurs in various parts of the Western Province, and all through the low wooded districts of the south-west, as well as in the Central Province up to 2,500 feet, at which elevation I met with it near Madulkelé in the Knuckles.

71. DRYMOCATAPHUS FUSCICAPILLUS, *Blyth.*—The whistling Wren-babbler; Baṭṭichchá *Sinh.*—Layard, Annals Natural History 1853, volume 12, page 269.

Another bird hitherto passed over and considered very rare. Exceedingly numerous all through the low-country of the south-west up to 2,000 feet in the Morowak Kóralé and Hinidum Pattu, and equally so in the Trincomalee district. Holdsworth remarks of it in his Catalogue, No. 139, "I only know of three specimens having been obtained, two of them by Layard in Colombo and on the central road leading northwards from Kandy, and one by myself also from the latter part of the Island." It has hitherto escaped observation owing to its shy habits and frequenting thick jungle, and I might have missed it as well as my predecessors, had not my attention, on first collecting in this district, been directed to the very remarkable note or whistle resembling the words, "to meet you," which I found on procuring a specimen emanated from this bird. Having once identified its voice, I found it an inhabitant of every bit of jungle and thicket in the neighbourhood. It occurs rarely, I imagine, in the Western Province, and will be found also in the lower parts of Sabaragamuwa. Mr. Bligh of Kandy has procured it in the Central Province, but I am not aware at what elevation.

72. POMATORHINUS MELANURUS, *Blyth.*—The Ceylon Scimitar Babbler.

Numerous in the jungles of the Héwágam Kóralé and interior of the Western Province generally, throughout the wooded country

of the south-west, but not so plentiful as I expected, in the upper parts of that district, in the Kandy country, and all throughout the Central Province as high as Nuwara Eliya. In the low-country of the south-west it affects by choice bamboo jungles.

73. GARRULAX CINEREIFRONS, *Blyth.*—The Ashy-headed Babbler.

Distributed sparingly throughout the Western, Central, and Southern Provinces (south-west), and inhabiting the damp and gloomy "múkalána" only. It is somewhat common in parts of Dumbara, I am told, and I have met with it in the Kukulu Kóralé, where I have no doubt it is more numerous than anywhere else, as the great Siṅha Rájah forest contains so many of our peculiar Island species in abundance.

74. MALACOCERCUS STRIATUS, *Swainson.*—The striated Babbler, "Dung Thrush" of Europeans; Demalichchá, *Siṅh.*; Malacocercus Bunalensis.—Layard, Annals Natural History, 1853, page 271; Malacocercus Striatus, *Swainson;* Kelaart, Prodromus Faunæ Zeylanica, page 122.

Throughout all the low-country in great abundance, especially numerous in the maritime districts of the Western and Southern Provinces, extending both into the Central and Morowak Kóralé hills to an elevation of about 2,500 feet; common up the valleys of the Giudurah and other southern rivers, numerous in the north-east; in fact, Layard says, *loc. cit.*, "it is one of our commonest birds," to which I would add also, Allcippe nigrifrons, Pycnonottus hæmorrhous, Ixos luteolus, Orthotomus longicauda, our two species of Corvidæ, and a few others.

75. LAYARDA RUFESCENS, *Blyth.*—The Rufous Babbler, "Red Dung Thrush" of Europeans; Kalu-parandal, *Siṅh.*; Malacocercus Rufescens. *Blyth.*—Layard, Annals Natural History, 1853, volume 12, page 271; Kelaart, Prodromus Faunæ Zeylanica, page 122.

Central, Western, and Southern Provinces. In the former it is common in parts of Pussellâwa, Deltota, Dumbara, Knuckles, and, according to Holdsworth, at Nuwara Eliya in the north-east monsoon, in the Western Province; it is abundant in the jungles and sometimes in the native gardens of the Héwágam, Rayigam, and Kuruwiṭi Kóralés (I noticed it particularly plentiful at Labugama during the Kraal in 1871); in the Southern Province it is numerous all through the low wooded country on either side of the Gindurah up to the Siṅha Rájah and Morowak Kóralé forests, where I found it at the latter end of the south-west monsoon. It is remarkable that out of the seven species of Babblers found in this Island, five are peculiar to it.

76. HYPSIPETES GANEESA, *Sykes.*—The Cinereous Bulbul; The Neilgherry Bulbul; Hypsipetes, Neilgherrienses, *Jerdon*; vide Holdsworth, Catalogue Ceylon Birds P.Z.S., 1872, No. 144; Kelaart, Prodromus Faunæ Zeylanica, page 123; Layard, Annals Natural History, 1854, page 125.

Western, Central, and Southern Provinces. More abundant in the latter than elsewhere, frequenting the Morowak Kóralé, Kukulu Kóralé, Upper Gindurah, Uḍugama, and Koṭuwa forests in vast numbers. It is perhaps more numerous in the latter low hill-forest ten miles from Galle than in the other parts; affects the chena-covered hills between that place and the sea and those on the banks of the Lower Gindurah, above Baddégama. Common in the low hill-jungles of the Western Province and in the Central Province on wooded patanas. Holdsworth found it at Nuwara Eliya in February, and Kelaart has it in his list from that place.

77. CRINIGER ICTERICUS, *Strickland.*—The yellow Forest Bulbul.- Layard, Annals Natural History, 1854, volume 13, page 124.

Abundant in many parts of the Island: throughout the Central Province to an elevation of 3,500 feet, in all the coffee districts, and in all parts of the low-country where there is forest. In the west it is found in all the forests of the Héwágam and Rayigam Kóralés, in the south-west in the "múkálana" of Kottowe (ten miles from Galle), Uḍugama, Opata, and in all the high-tree jungle of the Hinidum Pattu and Kukulu and Morowak Kóralés. It is more abundant at the medium altitudes of the above southern forests than elsewhere in the Island. In the north-east it is common in the district between Trincomalee and the Central road, and, as regards the south-east, it frequents the luxuriant parts along the Kirinde Ganga, and other rivers. This species together with Harpactes fasciatus, Dissemurus lophorhinus, Brachyptenus Stricklandi, and one or two others, is exclusively confined to forests.

78. IXOS LUTEOLUS, *Lessen.*—The White Bulbul, "Cinnamon Thrush" of Europeans. Pycnonotus flavirictus, *Strickland.*—Layard, Annals Natural History, 1853, pape 128; Kelaart, Prodromus Faunæ Zeylanica, page 123.

Western, Northern, Southern, and Central Provinces up to 4,500 feet. Very abundant throughout all the low-country, particularly in the neighbourhoods of Colombo, Galle, Hambantoṭa, and Trincomalee, and (according to Holdsworth) Aripu. It is common at all elevations up to that abovenamed, but decreases in numbers as it ascends.

79. PYCNONOTUS HÆMORRHOUS. *Gmelin.*—The common Bulbul, Madras Bulbul, "Dysentery Bird" of Europeans; Koṇḍa Kurullá of the Sinhalese.

This may perhaps be styled the commonest of Ceylon birds; it is abundant in all parts of the low-country except where there are large stretches of forest, and is numerous in the Central Province up to an altitude of about 4,000 feet. It is less numerous in the Morowak and Kukulu Kóralés on account of their being so heavily timbered, than at corresponding heights in the Kandy country. It is found throughout the low scrubby districts of the Mágam Pattu, and in the north it is as abundant as anywhere else.

80. RUBIGULA MELANICTERA. *Gmelin.*—The Black-headed Bulbul. — Pycnonotus Atricapilus; Layard, Annals Natural History, 1854, volume 13, page 125. Pycnonotus nigricapillus; Kelaart, Prodromus Faunæ Zeylanica, page 123.

Tolerably plentiful in the woods of the Héwágam Kóralé, and exceedingly abundant in all situations in the south-west from the sea border up to 2,000 feet in the Morowak and Kukulu Kóralés; throughout the Central Province up to the same altitude, and occurring in considerable numbers in many parts of the wooded country between Trincomalee and the Central road. It will be found in the damper parts of the south-east, in all probability, but it is most likely absent from the arid tracts of the north-west.

81. PHYLLORNIS JERDONI, *Blyth.*—The Green Bulbul.—Layard, Annals Natural History, 1853, volume 12, page 176; omitted from Kelaart's list, Prodromus Faunæ Zeylanica.

Northern, Western, Southern, and lower hills of the Central Province; numerous in the low cultivated country of the Western and Southern Provinces, occurring also in the forests of those parts; tolerably plentiful in some districts of the north-east; occurs in Dumbara, in company with many other low-country species, but I have not heard of it from higher parts.

82. PHYLLORNIS MALABARICUS, *Latham.*—The golden fronted Bulbul.—Layard, Annals Natural History, 1853, volume 12, page 176.

Not nearly so common as the last species, but much more widely distributed than has been supposed. Found in the north-eastern forests between Anurádhapura and Trincomalee, likewise in the Kottowe and Uḍugama "múkálana," along the sources of the Gindurah, and in the Siṅha Rájah and Kukulu Kóralé forests, throughout the Hinidum Pattu, and in the jungles of the Morowak Kóralé. Mr. Laurie of Madulkelé has procured it in the Knuckles district. Layard, *loc. cit.*, remarks that Dr. Kelaart got

this species at Nuwara Eliya, but that naturalist does not include it in his list from the sanatarium. Layard himself got it at Gillywally.

83. IORA ZEYLONICA, *Gmelin.*—The black-headed Bush Bulbul; the "Ceylon Bush-creeper" (Kelaart).—Layard, Annals Natural History, 1853, volume 12, page 267.

Abundant throughout the whole low-country both north and south, and extending into the hills of the Central and Southern Provinces to an elevation of about 1,000 feet; as far as I have observed this is one of the most strictly low-country species of its order that we have.

84. ORIOLUS CEYLONENSIS,—The Southern Oriole "Mango bird" of Europeans; "Kaha Kurullá, *Sinh.*

Throughout the low-country; generally common in the north-west (Holdsworth), likewise in the north-east, frequenting the forests there by choice; occurs in the Western Province in some districts more than others; numerous in the south-west, frequenting there open cultivated lands studded with clumps of trees, native gardens, and the like; occurs in the interior of the south-east.

85. COPSYCHUS SAULARIS, *Linn.*—The Magpie Robin; Pollichcha, *Sinh.*—Layard, Annals Natural History, 1853, volume 12, page 263.

Throughout the low-country and extending into the hills to an elevation of 3,500 feet. It may be often seen in the latter part, about the patanas near the bungalows of coffee estates; very numerous in the south-west and north-east, but somewhat occurs in the Hanbantota, and Kataragam districts, where its place is in a great measure taken by the equally charming and familiar little species, Thamnobia fulicata.

86. KITTACINCLA MACRURA, *Gmelin.*—The Shama. The Long-tailed Robin, Long-tailed "Thrush."

Western, Northern, Central and Southern Provinces. The districts in which this bird is most abundant are the Kataragam country (Mágam and adjoining Pattus) and the jungles of the north-east, particularly in the neighbourhood of Trincomalee. As it is a shy bird and frequents the densest part of the woods, it is seldom seen, but its melodious notes are heard on all sides in both those parts. Rare in the south-west, frequenting the bamboo jungles of the country round Baddégama, but rarely or ever seen owing to the thickness of the scrub; occurs in the interior of the Western Province, ranging up to the altitude of Kandy, where it is more plentiful; it probably occurs in the higher parts of the south as well. Holdsworth notices that it is abundant along the Kandy and Trincomalee road.

87. THAMNOBIA FULICATA, *Linn.*—The Black Robin.—Layard, Annals Natural History, 1853, volume 13, page 266.

Distributed throughout the whole of the low-country. According to Holdsworth is numerous at Aripu on the north-west; it decreases then towards the Western Province, being found there about chena clearings in the interior; becomes more plentiful in the same localities of the south-west, and abounds in the dry maritime districts from Hambantota round to the north-east. It is more plentiful in the south-east than in the latter district. I have not traced it, in the hills, to a greater elevation than 1,000 feet.

88. PRINIA SOCIALIS, *Sykes.*—The Bluish Wren Warbler.—Layard, Annals Natural History, 1853, volume 12, page 263; omitted from Kelaart's, Prodromus Faunæ Zeylanica.

Northern, Western, Central, and Southern Provinces. Sparingly distributed in all these parts, frequenting grass fields in the Western Province, sugar-cane fields about Galle and Baddégama, and patanas in the Central Province, up to, as far as I have observed, 3,000 feet. I did not find it in the north-east, but it most probably occurs there, as Layard, *loc. cit.*, found it at Point Pedro.

89. CISTICOLA SCHŒNICOLA, *Bonap.*—The Rufous Grass Warbler. Cisticola Cursitans, *Blyth.*—Layard, Annals Natural History, 1853, volume 12, page 262; Kelaart, Prodromus Faunæ Zeylanica.

Widely distributed over the whole Island from the sea coast up to Nuwara Eliya and the Horton Plains, in both of which districts it is said by Kelaart and Holdsworth to be very abundant, equally so on all patanas of the Central Province, and in paddy fields and grassy lands in most parts of the low-country. Less numerous than elsewhere in the south coast, there being but little land in that part suited to its habits.

90. DRYMOIPUS VALIDUS, *Blyth.*—The Ceylon Wren Warbler. Drymoica Valida, *Blyth.*—Layard, Annals Natural History, 1853, volume 12, page 262.

Western, Southern, and Central Provinces, and likewise in the north-eastern districts. This species, according to my observation, is not so abundant as D. Jerdoni, the common species about Colombo; it occurs in the Central Province in hill paddy fields, in the southern parts of the Island, in clearings in the valleys, and in the upper districts of the Hinidum Pattu in "kurukkan" fields. Not observed in the south-east.

91. PHYLLOSCOPUS NITIDUS, *Latham.*—The Green Tree Warbler. Phyllopneuste nitidus, *Blyth.*—Layard, Annals Natural

History, 1853, page 263. Omitted from Kelaart's list.

Migratory, appearing in September, and leaving in the latter part of April. It affects the tops of high trees in the forests of the Central Province, and in the jungle bordering the patana streams; the same in the southern and north-eastern parts of the Island; and affects pieces of detached jungle where the timber is large in the low-country of the south-west. It is met with near Colombo, about Póré, Hanwella, Bópé, and such parts as are wild and uncultivated.

92. CALOBATES SULPHUREA, *Beckst.*—The Grey and Yellow Wagtail, the Grey Wagtail. Motacilla boarula, *Linn.*—Layard, Annals Natural History, 1853, page 268; Kelaart, Prodromus Faunæ Zeylanica, page 121.

Migratory, as are all the Wagtails, arriving in September and leaving in May. I have found it in the Western, Central, and Southern Provinces; it remains about the coast for the first three weeks, during which time I have often seen it on the rocks of the sea shore, and then ascends to the hills, where it is found on every stream up to 6,000 feet. Mr. Holdsworth procured it at Nuwara Eliya; it is scarcely ever seen about streams at intermediate heights under 2,000 feet.

93. LIMONIDROMUS INDICUS, *Gmelin.*—The Indian Wood Wagtail. Gomariṭá, *Sinh.*—Nemoricola, *Blyth.*; Motacilla indica, *Gmelin.*—Layard, Annals Natural History, 1853, volume 12, page 268; Kelaart, Prodromus Faunæ Zeylanica, page 121.

Migratory to the Northern, North-Eastern, and Western Provinces; common in the jungles from Dambulla to Trincomalee and especially numerous in the vicinity of the latter and along the Anurádhapura road, affecting alike jungle paths and roads through the forest and open glades; very rare in the Western Province, having once or twice been procured near Colombo, and occurs no doubt in the jungles of the northern part of the Seven Kóralés.

Note.—This is, without any exception, in my opinion, the most charming of our birds. Fearless and most inquisitive in its disposition, it is the constant companion of the naturalist in his wanderings through the lonely jungles of the Northern Province, exhibiting on all occasions the most familiar and confiding character; often when I have been resting in some silent spot, the branches of the trees forming a thick canopy overhead and the open ground beneath strewed with dead leaves, this little denizen of the woods has come to within a couple of yards of me, busily searching about, running to and fro, and ever and anon "balancing" its elegant little body in the peculiar manner common to all its genus, and after surveying me for a moment with the quietest

curiosity, has hopped up, with its lively little "chuck, clinck," to the nearest branch, and, after running along it for an instant, has again commenced feeding within a few yards of the murderous weapon lying across my arm. I never could find it in my heart to shoot more than two specimens of it.

94. BUDYTES VIRIDIS, *Gmelin.*—The Indian Field Wagtail. Budytes viridis, *Scop.* Layard, Annals Natural History, 1853, volume 12, page 268.

Migratory, as the others of its family; common in all open grass lands in the Northern, Westeru and Southern Provinces; frequents newly-ploughed paddy fields, at times, in great numbers, and is especially noticeable on the esplanades of Galle, Colombo, and Trincomalee.

Note.—These birds remained very late this year, occurring at Galle as late as the 6th May.

95. CORYDALLA RICHARDI, *Vieill.*—Richard's Pipit. Anthus Richardi, *Temm.*—Layard, Annals Natural History, 1853, page 268.

A winter migrant to the Northern, Western, and Souther Provinces, arriving in September, and departing as late as the first week in May; common on all such open lands as those cited for the last named species; not so numerous in the Southern as in the Western Province and north-eastern districts. Found plentifully in the Jaffna peninsula.

96. CORYDALLA RUFULA, *Vieill.*—The common Indian Pipit. Layard, Annals Natural History, 1853, page 288.

Abundant all over the Islaud, to an elevation from the sea coast; frequents plains and patanas in the Central Province, and open grass lands, paddy fields, &c., in the low-country. It appears to be nowhere as plentiful in the south-west as in the north-east monsoon.

97. ZOSTEROPS PALPEBROSUS, *Temm.*—The common White-eye; "Tit" of Europeans. The Zosterops.

Widely distributed over the whole Island, and found in the hills of the Central Province up to 3,400 feet, at which elevation it is common in the Pussellawa district. Abundant at times in the trees in the Colombo and Galle forts, and found in both open groves and jungle where there are large trees.

98. ZOSTEROPS CEYLONESIS, *Holdsworth.*—The Ceylon White-eye. Ceylon Zosterops; vide Holdsworth, Catalogue Ceylon Birds, P. Z. S., 1872, No. 181, (Plate xx, Fig. 2.)

Zosterops annulosus, *Swains.* Layard, Annals Natural History, 1853, page 267.

One of our late additions by Mr. Holdsworth, and confounded hitherto with Z. Annulosus, *Swainson* (an African species), as well as with the subject of the forgoing note by Layard, *loc. cit.* Inhabits the hills from Nuwara Eliya, down to an altitude of about 2,000 feet in the Southern Province; abundant in the higher forests of the Knuckles, Upper Dimbula, and Pusselláwa, as well as in the high mountain jungle round Nuwara Eliya. In the Southern Province it inhabits all the high parts of the Morowak Kóralé, and is very abundant in the great Siṇha Rája forest and other similar localities in the Kukulu Kóralé and Hinidum Pattu; occurs sparingly on the highest parts of the Uḍugama and Opata hills (2,000 feet.)

99. PARUS CINEREUS, *Vieill.*—The Indian Titmouse, "Coffee bird" of Planters.—Layard, Annals Natural History, vol. xii, 1853, page 267.

Distributed throughout the hills of both the Central and Southern Provinces, affecting much coffee bushes in the plantations. Not resident much below 2,000 feet, and scarcer above that altitude in the Morowak Kóralé than in the central zone. Descends to the low-country at times in the North-East monsoon, occurring rarely along the west coast, at Colombo, Páuaduré, Kalutara, and Ambalaṇgoḍa.

100. CORVUS SPLENDENS, *Vieill.*—The Grey Crow, Karavy-kákká, *Sinh.*—Layard, Annals Natural History, volume 13, 1854, page 214.

Abundant in the low-country of the north, north-west, and north-east, likewise at Colombo, and all down the west coast as far as Bentoṭa, where, according to my experience and that of Mr. Neville (J., R. A. S. Ceylon, 1870–71, page 33) it suddenly ceases, and is replaced entirely on the south-west by the next species, Corvus Levaillanti. At Hambantoṭa I believe it occurs now and then, but the prevalent species at that place is the same as at Galle.

101. CORVUS LEVAILLANTI, *Lessen.*—The Carrier Crow. Goyagamma-kákká, *Sinh.* Corvus Culminatus, *Sykes.*—Layard, Annals Natural History, 1854, page 213; Kelaart, Prodromus Faunæ Zeylanica, page 124.

Distributed throughout the low-country and occurring in the hills up to 5,500 feet, at which altitude it is scarce. Common in the north and west, and very abundant in the extreme south, where it takes the place, as a citizen, of the last species.

In places where the grey bird is abundant, as at Colombo and along the west coast generally, this bird frequents rather inland districts, being invariably found about native villages and detached cottages in the woods.

102. CISSA ORNATA, *Wagler*.—The Ceylon Jay. Cissa puella, *Blyth*.—Layard, Annals Natural History, 1854, page 213; Kelaart, Prodromus Faunæ Zeylanica, page 124.

Throughout the Central Province and Morowak and Kukulu Kóralé hills. It affects the upper forests in the north-east monsoon, coming down in the other season much lower. I have found it on the Gindurah, in the interior part of the Hinidum Pattu, perhaps under 1,500 feet. It is very numerous in parts of the Rakwána districts and towards the Siṉha Rája forest at all seasons.

103. EULABES RELIGIOSA, *Linn*.—The Hill Myna, "Selalóniyá," *Sinh.*; Gracula Religiosa, *Linn*. — Layard, Annals Natural History, 1854, page 216; Kelaart, Prodromus Faunæ Zeylanica, page 126.

Western and Southern Provinces and lower parts of mountain zone; commences at some little distance from the sea in the south-west, and occurs up the valley of the Gindurah in abundance, and in all the subsidiary hill forests up to about 1,700 feet in the Morowak Kóralé and Hinidum Pattu. It is found about Negombo, in the Western Province. Compared with other Indian species inhabiting the Island, its distribution is very local.

104. PLOCEUS BAYA, *Blyth*.—The common Weaver Bird, the "Baya." Tatteh Kurullá, *Sinh*. Ploceus Philippinus, *Linn*.—Layard, Annals Natural History, 1854, volume 13, page 257.—P. Bengalensis, *Linn*.; Kelaart, Prodromus Faunæ Zeylanica, page 126.

Western, Northern and Southern Provinces. Numerous in the north-west, in the Mannár district, breeding there, according to Holdsworth, in December; frequents the Western Province about Kóṭṭé and other localities not far distant from Colombo, breeding there in May and June; abundant in the south-west, breeding in all parts of that district from Ambalangoḍá to Mátara, from May until August; the same in the north-east, breeding about Trincomalee in the north-east monsoon from October till December.

105. MUNIA UNDULATA, *Lath*.—The spotted Munia, Amadina undulata, *Lath*.—Layard, Annals Natural History, 1854, page 258; Kelaart, Prodromus Faunæ Zeylanica, page 125.

Entire low-country, North and South, and Central Provinces, and southern hills up to 3,000 feet, at which elevation I have observed

it on the patanas of all the coffee districts. It is equally abundant in all parts of the low-country (except perhaps in the Kataragama district) wherever the features of the locality suit its habits.

106. MUNIA MALACCA, *Linn.*—The Black-headed Munia, The Cinnamon-backed Munia; Amadina Malacca, *Linn.*—Layard, Annals Natural History, page 258; Kelaart, Prodromus Faunæ Zeylancia, page 125.

Northern, Western, and Southern Provinces. Appears not to ascend into the hills, and is not very abundant anywhere in the low country. Found in the Western and Southern Provinces about inland paddy fields, surrounded with wild jungle, and occurs in such like localities in the north-east, about Trincomalee. In the south-west it occurs near Galle, when the paddy is in ear, coming down from the interior, and evidently retiring again after the harvest. Layard found it at Jaffna, *loc. cit.*

107. MUNIA STRIATUS, *Linn.*—The White-backed Munia. "Wí-kurullá," Siṅhalese name for all the Munias. Amadina Striata, *Linn.*—Layard, Annals Natural History, 1854, page 258; Kelaart, Prodromus Faunæ Zeylanica, page 126.

Throughout the low-country of the north-west and south and probably the east, and ascending up to 3,000 feet on the patanas of the Central Province. In the western district occurs about Kóṭṭé and its neighbourhood, and throughout the country at the same distance from the sea down to the Galle district, where it is numerous about Baddégama and such places. Affects grassy, scrubby clearings and overgrown gardens in preference to paddy fields. Not abundant in the north-east.

108. MUNIA KELAARTI, *Blyth.* — The Ceylon Munia. Kelaart's Munia. Amadina pectoralis,* *Jerdon*; Layard, Annals Natural History, 1854, volume 13, page 258.

Common in the Central Province from Nuwara Eliya down to as low as 2,500 feet, where I have seen it in the same patana with M. Undulata and M. Striatus. I have not met with it in the Kukulu or Morowak Kóralé, and doubt if it occurs in the Southern hills.

109. ESTRELDA AMANDAVA, *Linn.*—The Amaduvad. Red Wax-bill. *Vide* my notes (J., R. A. S., C. B., 1870-71.)

Neighbourhoods of Colombo and Galle. No doubt this bird has become acclimatised in, or rather been introduced into, the Island

* An Indian species, allied to our bird, which has been separated from it since Layard wrote.

from having escaped from cages brought from India to both the above towns. I have only seen it twice in Galle, and that was at the Esplanade close to the Fort.

110. PASSER INDICUS, *Jerd. and Shelby.*—The Indian House Sparrow. Gé-kurullá, *Sinh.*

Throughout the whole island wherever there are inhabitants.

111. MIRAFRA AFFINIS, *Jerdon.* The Southern Bush-Lark.—Layard, Annals Natural History, 1854, volume 13, page 258.

On dry, open grass and scrubby land in the northern, western, and south-eastern districts; scarce in the Western Province, occurring in the Cinnamon Gardens; absent from the south-west; abundant in the lowlands of the south-east, particularly near the sea, and from thence round the east coast to Trincomalee and the north; very numerous about the grassy margins of tanks in the north-east. Layard found it at Point Pedro, and Holdsworth records it as plentiful at Aripu, just the kind of country to suit it.

112. PYRRHULAUDA GRISEA, *Scop.*—The Indian Finch Lark.—Layard, Annals Natural History, 1854, volume 13, page 259.

Abundant in the Northern Province, in the south-east, and probably all round the east coast to Trincomalee, where it is numerous; also strays into the Central Province. Jaffna, the north-east coast, and the Kataragama and Hambantoṭa country are the localities where I have found this bird numerous, and on the 17th November, 1870, while riding up the Ramboḍa Pass I was astonished to find a *male feeding in some grass by the road side at an elevation of* 6,000 *feet!* I was within ten yards of it, and watched for five minutes; so I made no mistake when noting this extraordinary occurrence down. In India I am not aware that it has ever been recorded at such an elevation, being essentially a low-country, plain-and-desert-loving bird.

113. ALAUDA GULGULA, *Frank.*—The Indian Sky-Lark.

Northern, western, and south-eastern districts, and probably throughout the Eastern Province; migratory to the south in the north-east monsoon. It is abundant throughout the dry districts of the north, north-west, and north-east, and occurs on the western and south-western coasts in such places as the "Galle Face" at Colombo, and esplanade at Galle, or on any similarly situated open land. I did not find it anywhere on the hill patanas, and am of opinion that it never leaves the low-country.

114. OSMOTRERON BICINCTA. *Jerdon.*—The Orange-breasted Fruit Pigeon, "Green Pigeon" of Europeans. Batagoyá, Sinhalese name for all the genus. *Treron Bicincta, Blyth.*; Kelaart, Prodromus Faunæ Zeylanica, page 130.

Northern, Western, Central, and Southern Provinces. Occurs rarely in Dumbara; tolerably numerous in Trincomalee district; scarce about Colombo, becoming more plentiful a little distance inland, and towards the south, where it is (in the Galle district) almost as numerous as Turtur Suratensis. It extends in that part, up the valley of the Gindurah, to about 30 miles in a straight line from the sea, and then seems to be replaced almost entirely by the next species. This pigeon visits certain districts according as its favourite fruits abound; common along rivers in south-east.

115. OSMOTRERON POMPADOURA, *Gmelin.*—The Maroon, Maroon-backed Fruit Pigeon; vide Holdsworth, Catalogue Ceylon Birds, P. Z. S., 1872, No. 20.

Northern, Western, Central, and Southern Provinces. Local in its distribution through these parts. Common about Trincomalee and inland from thence to the Vauni district; abundant in parts of the south-western hill country, commencing some distance inland, and extending up to 2,000 feet in the Hinidum Pattu and Morowak Kóralé; plentiful on the Kirinde Ganga and other rivers of the Kataragama district; occurs in the country round Kurunégala, and in the wilder parts of the Héwágam and Pasdun Kóralés. Layard found it in the central mountain zone, but I do not think that it ranges about 2,000 feet.

116. CARPOPHAGA SYLVATICA, *Tickell.* — The Green Imperial Pigeon, "Wood-pigeon" of Europeans in the low-country. Maha Nil Goyá, *Sinh.*—Kelaart, Prodromus Faunæ Zeylanica, page 130. Carpophaga, Pussilla, *Blyth.*—Layard, Annals Natural History, volume 14, page 59?*

Throughout the forest-covered and heavily-wooded districts of the Island; more abundant below 2,500 feet than above that height; common in the district between Anurádhapura and Trincomalee; abundant in parts of the Eastern Province and also in the south-east, especially in the vicinity of Tissamaharáma; in all the forests of the south-west from the Kukulu Kóralé to the neighbourhood of Galle; likewise in the wilder parts of the Western Province, between Ratnapura and Colombo.

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* Unfortunately the few pages containing Layard's notes on this and one or two other pigeons are torn out of the volume in the Royal Asiatic Society's Library.

117. TURTUR SURATENSIS, *Gmelin.*—The spotted Turtle-dove. "Kobeyá," *Sinh.*—Kelaart, Prodromus Faunæ Zeylanica, page 130.

Common throughout the whole Island up to 2,000 feet in the Central Province; especially abundant in the north, north-east and south-west. I have not met with it above 1,500 feet in the Hinidum Pattu and Morowak Kóralé, although it occurs at greater elevations than that in the Kandy country.

118. CALCOPHAPS INDICA, *Linn.*—The Ground Dove, Green Dove. "Green Pigeon," "Bronze Wing," and Beetle-winged Pigeons of Europeans. "Nil-Kobeyá;" *Sinh.*—Layard, Annals Natural History, 1854, volume 14, page 62.

North-east, Central Province, West, and whole of the South. Very common in the Bamboo chena country from Galle inland to the Hinidum Pattu and parts of the Morowak Kóralé.

119. GALLUS STANLEYI, *Gray.*—Ceylon Jungle Fowl. "Weli-Kukulá;" *Sinh.* — Layard, Annals Natural History, 1854, volume 14, page 62. Gallus Lafeyetti, *Lesson.*—Kelaart, Prodromus Faunæ Zeylanica, page 131.

Found on the whole Island, extending from all parts of the coast where there is jungle up to Nuwara Eliya; less numerous in the cultivated maritime districts of the west and south-west coasts than elsewhere; not very abundant in the hill country of the south-west, becoming exceedingly numerous east of Tangalla, through all the flat country of the Hambantota and Kataragama districts round to the north; equally so in the Trincomalee district, particularly in the jungles along the sea coast; abundant in the upper hills, especially when the "nelloo" (Strobilanthes viscosus ?) is in flower, at which time I am informed the jungles round the Horton Plains swarm with this species.

120. GALLOPERDIX BICALCARATA, *Foster.*—The Spur-fowl, Spurred Partridge. Haban-kukulá, *Sinh.* — Layard, Annals Natural History, 1854, volume 14, page 105; Kelaart, Prodromus Faunæ Zeylanica, page 131.

Central, Southern and Eastern Provinces. Does not appear, as far as the low-country is concerned, to extend north of Negombo on the west and Batticaloa, although on the northern slopes of the Knuckles its range would of course extend beyond the latitude of those places. It may occur in the forests of the north-east, but I was not successful in tracing it there. Abundant throughout the Central Province, in the north-east monsoon especially, frequenting the jungle above the coffee estates to an altitude of about 5,000 feet. I noticed it particularly numerous in Upper Dimbula.

Common in the Sabaragamuwa district. It is more numerous in the south-western hill groups than in other parts of the Island, this part being its headquarters; it frequents all the bamboo and chena scrub, secondary jungle, and primæval forest from close to Galle up to the highest parts of the Morowak Kóralé. I did not meet with it in the maritime districts of the south-east, but it is doubtless found at some little distance inland, as it occurs in the Friar's Hood district of the Eastern Province.

121. ORTYGORNIS PONDICERIANA, *Gmelin.*—The grey Partridge. Oussa Waṭuwá, *Sinh.* Francolinus Ponticerrinus, *Gmelin.* —Layard, Annals Natural History, 1854, volume 14, page 107; Kelaart, Prodromus Faunæ Zeylanica, page 131.

Northern and Western Provinces. Common from Jaffna along the west coast down to Puttaḷam, not found at the east coast however; tolerably numerous near Colombo about the Cinnamon Gardens, where I imagine it has introduced itself by escaping from confinement. Layard, *loc. cit.*, says it is found at Tangalla; I have however not heard of it from that part, and did not meet with it further round to the south-east. Kelaart procured it at Nuwara Eliya.

122. EXCALFATORIA CHINENSIS, *Linn.*—The Chinese Quail. Blue-breasted Quail. "Wenḷla-waṭuwá," *Sinh.* Coturnix Chinensis, *Linn.*—Layard, Annals Natural History, 1854, page 107, volume 14, page 107.

Western and Southern Provinces; abundant in all the paddy fields of the south-west, and extreme south as far round as Mátara, not extending far inland however; common in swampy fernbrakes in the Cinnamon Gardens near Colombo and in like situations down the West Coast.

123. TURNIX TAIGOOR, *Sykes.*—The Black-breasted Quail. "Rain Quail." Panduru Waṭuwá, *Sinh.* Turnix Occellatus, *Scop.*—Layard, Annals Natural History, 1854, volume 14, page 107; Coturnix Coromandelica, *Gmelin.*—Kelaart (erroneously) Prodromus Faunæ Zeylanica, page 131.

Throughout all the low-country north and south, where the features of the land suit its habits. Abundant in the north-west, and tolerably common on the other coast near Trincomalee; inhabits low copses, overgrown clearings, &c., in the low hills and intervening flats of the south-west. It is not numerous in the Hambantoṭa district, being probably found more in the open "park" country than near the sea.

Note.—Layard, *loc. cit.*, says this species is abundant in the south, and the variety which Mr. Blyth designates as T. Bengalen-

sis, in the north. P. Bengalensis is however synonymous with P. Taigoor; I did not see any difference, in examples procured in the Trincomalee district, from many south country specimens, and I notice that Holdsworth, Catalogue Ceylon Birds, P. Z. S., 1872, No. 223, does notice the fact of another variety existing in the north.

124. CHARADRIUS FULVUS, *Gmelin.*—The Indian Golden Plover. "Oleya," "Rana Waṭuwá," *Sinh.*; Charadrius longipes, *Temm.*—Charadrius Virginicus, *Beck.*—Layard, Annals Natural History, volume 14, page 109.

Migratory to Ceylon, appearing in September and leaving in April, generally distributed in the low-country and found where there are open lands; more numerous between Baddégama and Galle than anywhere else in the south; occurs near Colombo in hot weather; found in the maritime districts of the south-east, but not in any great numbers. This species wanders about a good deal in hot weather, being found there in spots which it never frequents at other times.

125. ÆGIALITES MONGOLICUS, *Pallas.*—The Lesser Sand Plover; "Waṭuwá," *Sinh.* Hiaticula Leschenaulii, *Lesson.*—Layard, Annals Natural History, volume 14, page 109; Kelaart, Prodromus Faunæ Zeylanica, page 133.

Around the whole coast of Ceylon, arriving in October and departing as late as the first week in May. Frequents sandy banks of rivers and open lands in the south-west; found after rain in such spots as the "Galle Face" at Colombo, and the esplanade at Galle; numerous round all the salt lakes and lagoons from Hambantoṭa to Trincomalee, and very abundant north of that on Niláveli, Kumburaputty, Periya Karrety, and Mullaittivu back-waters and in all lagoons to the extreme north. At the west coast it is numerous from Jaffna down to Negombo lake.

126. ÆGIALITES DUBINS, *Scop.*—The Indian Ringed Plover. Ægialites Philippensis, *Scop.* Hiaticula Philippina, *Scop.*; Layard, Annals Natural History, 1854, volume 14, page 109.

North, west, east, and south-east coasts. Not nearly so abundant as, and more local than, the last species; common in the north-west, where Mr. Holdsworth thinks it is resident; occurs at times down the west coast on grass lands near the sea; absent from the south-west and not frequent on the salt pans of Hambantoṭa and Kirinda; more numerous, as far as I have observed, along the north-east coast than elsewhere, where it affects the shores of all the salt lagoons beyond Niláveli to Mullaittívu. All these small species of *charadrinæ* are met with on the lagoons and estuaries of Jaffna.

127. LOBIVANELLUS INDICUS, *Bodd.*—The Indian Lapwing. Red-wattled Lapwing; Kibulla, *Sinh.* Lobivanellus Gœnsis, *Gmelin;* Layard, Annals Natural History, volume 14, page 109; Kelaart, Prodromus Faunæ Zeylanica, page 132.

Abundant throughout all the low-country both in the maritime districts and at some distance inland, wherever there are open lands, swamps, tanks, paddy fields, &c. Less plentiful in the south-west, perhaps, than in other districts. In the south-east frequents borders of tanks and the flat lands around the salt pans.

128. ÆDICNEMUS CREPITANS, *Temm.*—The Stone Plover. Norfolk Plover. "Thick-knee."—Layard, Annals Natural History, 1854, volume 14, page 108; omitted from Kelaart, Prodromus Faunæ Zeylanica.

Northern, Western, and Eastern Provinces, and south-eastern districts. Common on both coasts in the north, being numerous about Trincomalee. In the south-east it is plentiful at Kirinda and all that neighbourhood; in the west it is scarce, occurring in the Cinnamon Gardens during the first part of the north-east monsoon. I have never met with it in the Galle district; it appears to be migratory to those parts of the south which it frequents.

129. STREPSILAS INTERPRES, *Linn.*—The Turnstone.—Layard, Annals Natural History, 1854, volume 14, page 110; Cinclus Interpres, *Linn.*—Kelaart, Prodromus Faunæ Zeylanica, page 133.

Migratory; very local in its distribution, and our rarest wader. Layard records it, *loc. cit.*, at Point Pedro in the month of January. Occurs down the north-west coast, and probably on the salt lakes and lagoons of the Mullaittívu and Trincomalee districts. It is absent from the south-west, and more numerous, I am of opinion, in the south-east than elsewhere; I found it in that district in pairs, frequenting the shores of the salt lagoons.

130. GALLINAGO STENURA, *Temm.*—The Pin-tailed Snipe. Indian Snipe. Kas-watua, *Sinh.*—Layard, Annals Natural History, 1854, volume 14, page 266; Kelaart, Prodromus Faunæ Zeylanica, page 135.

Found throughout the Island up to an elevation of 3,000 feet, beyond which a few stray to the upper hills. Arrives in the Western Province as early as the 20th September, and remains as late in the Southern Province as the 6th of May; these are of course only individual instances. Especially numerous in the Kurunégala district, at Tamblegam in the north-east, about some of the tanks in the Eastern Province, and at Udugama in the south western forest district.

131. RHYNCHŒA BENGALENSIS, *Linn.*—The Painted Snipe. "King Snipe." "Rajah-watuwa," *Sinh.* — Kelaart, Prodromus Faunæ Zeylanica, page 135; Layard, Annals Natural History, 1854, volume 14, page 266.

Found throughout the whole of the low-country, arriving about the same time as the "Pin-tail," and leaving in May, although many individuals remain here to breed.* It is locally numerous, being common in some districts where there are marsh and deserted paddy lands, and rare in others equally favourable to its habits of concealment. Numerous about Pánaduré and Bolgoḍa lakes, near Kalutara and Wakwella, Mátara, &c.; likewise in the north-east about Tamblegam, the "salt lake," and other localities in the vicinity of the Naval Port. In this latter district it affects much the salt marshes near the edge of the tidal flats round the salt lagoons. Tolerably frequent in the Jaffna district. I am not aware whether it frequents the south-eastern parts of the Island in any quantity.

132. ACTITIS GLAREOLA, *Gmelin.*—The spotted Sandpiper. "Watuwa," *Sinh.*

On salt marshes, near and on tidal flats, along margins of brackish lagoons, on the borders of tanks, and in paddy fields newly ploughed all round the shores of the Island, extending into the interior where there are tanks and cultivated fields; more numerous perhaps in the north-west, about Jaffna, and all down the north-east coast, and also all the salt-pans of the south-east, than in the Western Province and south-western districts; in these latter parts, however, it is generally distributed, being, in company with the next species, the only waders found on the dreary shores of the mangrove-lined lagoons of Amblangoḍa, Rogalla, and the like places.

133. ACTITIS HYPOLEUCOS, *Linn.*—The common Sandpiper; Totanus hypoleucos, *Linn.*—Layard, Annals Natural History, 1854, volume 14, page 265; Kelaart, Prodromus Faunæ Zeylanica, page 134.

Throughout all the low-country and up to 3,000 feet in the hills, frequenting the borders of rivers far inland, the shores of the salt lagoons and brackish lakes, and the rocks of the seashore round the Island. For the greater part migratory, arriving very early in September and leaving in May, but some few remain throughout the year; whether they breed or not, I am unable to state.

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* This bird has been known to breed at Anurádhapura, Kalutara, Uḍugama, and Póré, near Colombo, from which latter place the "nestling" in the Society's Museum was procured.

134. HYDROPHASIANUS CHIRURGUS, *Scop.*—The Pheasant-tailed Jacana, the "Water Pheasant;" Ballat-saaru or "Cat Teal" of the Siṅhalese.—Layard, Annals Natural History, 1854, volume 14, page 267. Hydrophasianus Sinenses, *Waghler.*—Kelaart, Prodromus Faunæ Zeylanica, page 135.

Throughout the whole of the low-country, on all fresh water tanks, swamps, and lakes. Very numerous on all the inland tanks of the Vanni and Trincomalee districts, in Bintenna lake, on the tanks of the east and south-east (particularly Tissa Maha Rama and Sittrawella in the Kataragama country), about Mátara, on Bolgoḍa lake, and on Koṭṭe lake, and other sheets of water in the Western Province.

135. PORPHYRIO POLIOCEPHALUS, *Lath.*—The Blue Coot, Purple Coot. Kittala, *Siṅh.*—Layard, Annals Natural History, 1854, volume 14, page 268. Omitted from Kelaart's Prodromus Faunæ Zeylanica.

Throughout the low-country generally. Rare on Bolgoḍa, Amblangoḍa lakes, frequenting secluded nooks; occurs about the marshes near Mátara; more common on the tanks of the south-east and throughout the Eastern Province, and abundant on the tanks of the Western Proviuce and on Bintenna lake.

136. GALLINULA PHŒNICURA, *Forster.*—The white-breasted Water-hen. "Korowaka," *Siṅh.*—Gallinula Phœnicura, *Pennant.*—Layard, Annals Natural History, 1854, volume 14, page 268; Kelaart, Prodromus Faunæ Zeylanica, page 135.

Abundant throughout the low-country, and occurring in the valleys of the Central Province at about 2,000 feet. Affects swamps, marshes, paddy fields, tanks, ditches, and all spots where there is water permanently.

137. GALLICREX CRISTATUS, *Lath.*—The Water-cock. "Kora" in India. "Willi-kukula, *Siṅh.*—Gallinula cristata, *Lath.*—Layard, Annals Natural History, 1854, volume 14, page 268; Kelaart, Prodromus Faunæ Zeylanica, page 135.

Occurs sparingly in all marshy districts throughout the low-country. In the Western Province at Kóṭṭé, and in Pánaduré and Bolgoḍa lakes; in the south-west about Amblangoḍa, Wákwella, and Mátara; on Tissa Maha Rama and all tanks of the south-east and Eastern Province; in similar localities in the neighbourhood of Trincomalee, where it is tolerably plentiful. It appears to be migratory to the south.

Note.—This species is always found in damp places covered with long grass.

138. RALLINA CEYLONICA, *Gmelin.*—The Banded Rail. Porzana Zeylonica, *Gmelin.*—Layard, Annals Natural History, 1854, volume 14, page 267. Covettuera Zeylanica, *Brown.*—Kelaart, Prodromus Faunæ Zeylanica, page 135.

Migratory to the west coast, coming in with the long shore wind in October. It extends to the Kandyan country, being occasionally found in Dumbara. I have not heard of it from the east coast.

139. PORZANA FUSCA, *Linn.*—The Ruddy Rail; Layard, Annals Natural History, 1854, volume 14, page 267. Omitted from Kelaart, Prodromus Faunæ Zeylanica.

Western and Central Provinces. This is a very rare species; Layard got it at Kotte, near Colombo, and I have heard of individuals from the Kandy district, these being the only places where it has as yet been observed.

140. ARDEA PURPUREA, *Linn.*—The Purple Heron; Blue Heron. "Karawal Koka," *Sinh.*—Layard, Annals Natural History, volume 14, page 110; Kelaart, Prodromus Faunæ Zeylanica, page 133.

Throughout the marshy, well-watered districts of the Island, but more numerous down the west coast than on the opposite side of the Island, where the Grey Heron takes its place in some measure. Numerous about Kalpitiya, Negombo, Bolgoda and Amblangoda, lakes and marshes to the south of the latter, and about Mátara; occurs on the tanks in the Kataragama district, and generally throughout the Eastern Province; more plentiful again towards the north, frequenting Topur tank and all the salt lakes from Trincomalee and Nilaveli northwards through Terria and Mullaittivu to Jaffna.

141. BUPHUS COROMANDUS, *Bodd.*—The Cattle Egret. "Paddy Bird" of Europeans. "Gelevi Koka," *Sinh.*—Ardea bubulcus, *Savig.*—Layard, Annals Natural History, 1854, volume 14, page 111; Kelaart, Prodromus Faunæ Zeylanica, page 133.

Throughout the low-country; more abundant in the south and west than on the east side and in the Northern Province. Inhabits paddy fields and open lands in the vicinity of streams and swamps between Colombo and Ambépussa, throughout the Rayigam and Pasdun Kóralés, and in the Galle and Mátara districts; occurs in similar localities, but not so plentifully, in the neighbourhood of Kataragama and throughout the Eastern Province, likewise in the vicinity of all the salt lagoons between Trincomalee and the Jaffna district, and occurs frequently in Dumbara.

142. ARDEOLA GRAYII, *Sykes.*—The Pond Heron. "Paddy Bird." "Kanna Koka," *Sinh.*—Ardeola leucoptera, *Bodd.*—

Layard, Annals Natural History, 1841, volume 14, page 112; Kelaart, Prodromus Faunæ Zeylaniea, page 133.

Throughout all the low-country and extending into the Central Province to 2,500 feet; abundant in all marshes and paddy fields and in the vicinity of fresh water; perhaps less numerous in the dry districts of the north-west and south-east than elsewhere.

Note.—There is a small colony of these Herons in the Fort at Trincomalee, around which they may be seen perched on the rocks catching fish. This is the only place where I have ever observed the species in such situations.

143. BUTORIDES JAVANICA, *Horsf.*—The Little Green Bittern.—Layard, Annals Natural History, 1854, volume 14, page 113; omitted from Kelaart's List, Prodromus Faunæ Zeylanica.

Throughout the low-country generally, but most numerous in the north, north-east, and south-west. In the north it is found in the Fort ditch at Jaffna and other similar spots, and frequents the borders of all salt lagoons in the Trincomalee district which are immediately surrounded by underwood and jungle, in which it lurks by day, coming out just before sunset to feed. Occurs on Colombo lake and about Kóṭṭé, likewise on Bolgoda and Amblangoda lakes; numerous on the banks of some of the south-western rivers to a distance of thirty or forty miles from the sea. Layard, *loc. cit.*, remarks that it replaces *Ardetta Sinensis* in the north, and appears to have overlooked it in the south. It affects the immediate banks of rivers, hiding during the day under the overhanging bushes and jungle, and is thus likely to be passed over in places, where, as on Gindurah river, it is common.

144. ARDETTA FLAVICOLLIS, *Lath.*—The Black Bittern; Layard, Annals Natural History, 1855, volume 14, page 113; omitted from Kelaart's list, Prodromus Faunæ Zeylaniea.

Migratory to the west and south of Ceylon during the north-east monsoon; frequents the swamps in the vicinity of Colombo, where it first arrives; occurs in reedy, grassy spots on the borders of all the lakes of the Western Province. I did not meet with it either in the south-east or in the Trincomalee district. Layard, *loc. cit.*, says it is "not uncommon about Mátara."

145. ARDETTA CINNAMOMEA, *Gmelin.*—The Chesnut Bittern. "Nati-Korowaka," also "Meti-Korowaka," *Sinh.*—Layard, Annals Natural History, 1854, volume 14, page 113; Kelaart, Prodromus Faunæ Zeylanica, page 133.

Western and south-western districts. Common in the Cinnamon Garden fernbrakes and in paddy fields throughout the Rayigam

Kóralé, and in the neighbourhood of Bolgoḍa and Amblangoḍa lakes; likewise in the Galle district as far east as Mátara. I did not meet with it in the north-east, but it most likely inhabits that district, which has much in common with the south.

146. NYCTICORAX GRISEUS, *Linn.*—The Night Heron. "Ra-Kana Koka," *Sinh.*—Layard, Annals Natural History, 1854, volume 14, page 114; omitted from Kelaart's list, Prodromus Faunæ Zeylanica.

On the borders of secluded lakes and tanks throughout all the low-country; frequents sequestered spots, living in "colonies" on Amblangoḍa, Bolgoḍa, and Taṇgalla lakes, Sittrawella and Uḍuwella tanks in the Kataragam country, and similar localities in the north-east.

147. GOISACHIUS MELANOPHOLUS, *Raffles.*—The Malay Bittern. Tigrisema Melanophila, *Raffles.*—Layard, Annals Natural History, 1854, volume 14, page 114; omitted from Kelaart's list, Prodromus Faunæ Zeylanica.

An occasional visitor occurred in the vicinity of Colombo in November, 1852, vide Layard, *loc. cit.*; at Aripu in the north-west, during the same month of 1866; and, finally, near Colombo, where the Society's specimen was obtained during last November. It has generally been obtained in marshes, the natural abode of Bitterns, the only exception to that rule having been in the case of Mr. Holdsworth's example, which was found lurking among some thick bushes in his compound at Aripu, and had, in all probability, not been more than a few hours in the Island.

Note.—The occurrence of this Malayan form, in Ceylon, which appears to be migratory to the country with the north-east monsoon, is extremely interesting. It has never yet been procured on the Indian coast, and would seem to be drifted to the south-west from the opposite side of the Bay of Bengal purely by the influence of the wind from that quarter. Its visits certainly are few and far between, and it must accordingly be viewed in the light of an "occasional visitor, and not a regular migrant." It has always, it will be observed from the above remarks, been found here at the beginning only of the north-east monsoon, but this is easily explained by the fact, that birds on first arriving in a new country are always more readily procured than afterwards, when they have wandered into their accustomed haunts. It has moreover been shot, in each instance, on the west side of the Island—that farthest removed from its natural habitat, Malacca, but this, I think, is entirely owing to the absence of any very diligent researches into the avifauna of the east coast during the north-east monsoon or at any other time of the year.

148. ANASTOMUS OSCITANS, *Bodd.*—The Shell Ibis "Shell-eater" of the Indian sportsmen. Gombelli-koká, *Sinh.*—Layard, Annals Natural History, 1854, volume 14, page 115.

Throughout the low-country, but rare along the western coast. There is a "colony" on the lake near Amblangoḍa, and the specimen in the Society's Museum (a young bird) was procured in the Kẹlani-gaṇga. Very abundant in the south-east, frequenting Sittrawella, Tissa Maha Rahma, Uḍuwella, and other tanks in the Kataragam district, and extending from thence through the Eastern Province. It is rare in the north-east, occurring on Tóppu tank. Probably numerous on the Paderia and other inland sheets of water in the Northern Province.

149. DENDROCYGNA JAVANICA, *Horsf.*—The Whistling Teal. "Teal" of Europeans. Saaru, *Sinh.*—Dendrocygna arcuata, *Cuv.*—Kelaart, Prodromus Faunæ Zeylanica, page 136; Layard, Annals Natural History, 1854, volume 14, page 269.

Throughout the whole of the low-country, not extending into the hills. In the Western Province particularly abundant at times, about Bolgoḍa and on the borders of the Beutoṭa river; about Mátara and in the neighbourbood of Baddégama in the south; likewise on all the eastern and northern tanks.

150. PODICEPS PHILIPPENSIS, *Bonn.*—The Indian Grebe "Dab-chick"; Layard, Annals Natural History, 1854, volume 14, page 270; Podiceps nimor, *Lathan.*—Kelaart, Prodromus Faunæ Zeylanica, page 137.

Common in the Northern, Eastern, and Western Provinces, somewhat scarce in the south. Found on Colombo lake, and numerous on many of the tanks in the north.

151. STERNA NIGRA, *Linn.*—The white-winged Black Tern. S. Leucoptera, *Temm.*—Holdsworth, Catalogue Ceylon Birds, P. L. S., 1872, No. 310.

North-west coast. Procured by Holdsworth near Aripu in May 1860; and a very rare visitor to our shores. *Hab.* "India, China, North Africa, and South Europe."

152. HYDROCHELIDON LEUCOPARCIA, *Natt.*—The small Marsh Tern. Hy. Indica, *Stephens*,—Layard, Annals Natural History, 1854, volume 14, page 270.

On inland marshes, paddy fields, and tanks in the vicinity of the sea round the whole coast. Abundant also on the salt lakes of the north-east, and extending inland in that part to the tanks of the Vanni district; frequents the salt-pans near Hambantoṭa; more numerous in paddy fields in the south-west than in other localities; common on Bolgoḍa lake.

153. (?) THALASSEUS CRISTATUS, *Stephen.*—The large Sea-Tern. May be St. Bergii, *Licht.*—Hume, "Stray Feathers," volume 1, page 283; Layard, Annals Natural History, 1854, volume 14, page 270; omitted from Kelaart's list, Prodromus Faunæ Zeylanica.

Chiefly along the west and south coasts. Numerous at Colombo and Galle, and frequenting all parts where there are isolated wells at a little distance from the shore; less so on the south-east, and not so abundant along the north-east coast as the next species.

154. THALASSEUS MEDIUS, *Horsf.*—The Lesser Sea Tern. Thalasseus Bengalensis, *Lesson.*—Layard, Annals Natural History, volume 14, page 270; omitted from Kelaart's list, Prodromus Faunæ Zeylanica.

Equally abundant on parts of all our coasts: Aripu, Colombo, Galle, on the west; Hambantota, Batticaloa, and Trincomalee, on the east; the Jaffna peninsula on the north. More numerous than any other species of Tern, with perhaps the exception of Gelochelidon anglica.

Galle, 20th May, 1873.

BRAND MARKS ON CATTLE.

BY JAMES D'ALWIS.

CATTLE, as considered by all Oriental nations, are a necessary part of a man's substance. It was therefore that Abraham is said to have been "*rich in cattle*, as well as, in *silver and gold*." (Gen. xiii. 2.) Not only from the esteem in which the possession of cattle was anciently held, as a part of man's wealth, but from considerations of policy the destruction of the animal was prohibited, and visited with severe punishment. In process of time people ceased to kill cattle for food, and cattle-stealing became a crime unknown in the land. The force of this habit however became gradually so strong that the Siṉhalese had as much aversion to beef as a Moorman has a dislike for pork. There are not few in this island, especially in the Kandyan provinces, who have not tasted, and would not taste, beef. We have known instances where noblemen, invited to the houses of their friends, have refused to partake of food, simply because there was beef on the table. When, in one of our visits into the interior, many years ago, we accepted an invitation of Mahavalatçnne Raṭémahatmayá, though the Kumárihámí of the late Adigar did the company the honor to be present, she nevertheless abstained from partaking any food, simply on account of *geri-mas* 'beef.' 'Gerimaha-gulámálá' was, as we learn from history, the opprobrious term with which the Siṉhalese reproached Europeans for a long time after the British conquest.*

* See Marshall's Conquest of Ceylon.

The laws and usages relating to cattle were universally the same in the East. Those of the Singhalese were particularly identical with the Institutes of Manu.

The principles, as laid down in that primeval law, are briefly as follows:—If cattle, fed and kept in one's house, trespass, by day, the blame falls on the herdsman; if by night, on the owner. But, if the place in which they are secured be different, the keeper alone is responsible for any damage. He, too, is responsible for the loss of a beast, which, for want of due care on his part, has strayed, has been destroyed by wild animals, or has died by falling into a pit. He is exempted from all responsibility when a loss is occasioned by *vis major;* but, even in such a case, he is required to give prompt notice to the owner, and to make diligent search soon after the loss. So great seems to have been the jealousy with which the acts of herdsmen were watched over, that he was required, upon the death of any cattle in his charge, to produce to his master their ears, hides, tails, limbs, &c.—a practice still rigidly observed in all parts of Ceylon, by the production of the hide containing the familiar "brand-mark" of the owner.—*Manu* viii. 299. *et seq.*

The punishment for violence against cattle was the same as if the injury was inflicted on man. The offender received punishment as severe as the presumed suffering; and, where such injury resulted in "hurting a limb, wounding, or fetching blood," the offender was also to make good the expense of a perfect cure.—*Ib.* viii. 236, 7.

Besides punishment adequate to the offence, which was inflicted in ordinary cases of cattle-stealing, thefts of cattle belonging to temples, &c., were punished more severely.—*Ib.* 324, 5.

These regulations were not less salutary in a moral point of view—putting cattle-stealing beyond all temptation—than in the promotion of agriculture. Even after the

destruction of the agricultural prosperity of this island by foreign invasions and internal commotions during the long period which preceded the British conquest in 1815, the number of cattle in the Island, as we gather from casual observations of travellers, diplomatists, and historians, was greater at that date than they are now. It is a positive fact that the Island now produces, annually, less than the number slaughtered by honest or foul means. Though, perhaps, the number killed by the butcher exceeds that which falls a prey to the knife of the cattle-stealer, yet, few—very few, people have a correct conception of the great loss which the country, and the interests of agriculture in general, have suffered, and suffer by cattle stealing.

To prevent this great evil, or rather to promote the agricultural interests of the land, various enactments have been ordained from time to time by the legislature of this country. Two proclamations declared it penal to introduce into healthy districts cattle, suffering from contagious diseases. When, in 1816 and 1828 an extraordinary murrain produced an extensive mortality among cattle, the Government unconditionally prohibited the destruction for a time of "cows and cow-calves," under a penalty of Rds. 50. In 1836 cattle-stealing increased so much that the legislature prevented the private killing of cattle by restrictions of different kinds, of which the description of the animal by its "marks" was made a condition precedent for obtaining a ticket authorizing its slaughter. Besides other measures, by which even the possession of beef, unless satisfactorily accounted for, was made criminal, a provision was made by the Ordinance No. 2 of 1835, amongst other things, for the registration and the *branding* of cattle [*see* cl. 7.] However leniently this law is enforced, the practice of branding cattle is carried on by all parties

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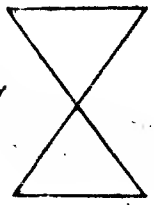

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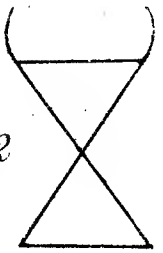

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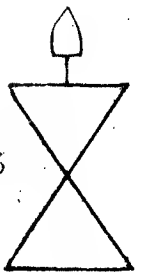

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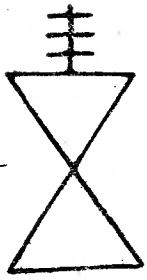

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Toondalloo Pahimbiye

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Codie Hanne

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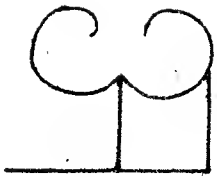

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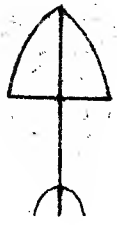

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Neloom Mall

№ 9

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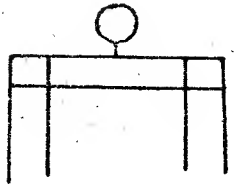
Neloom Mall Addehandé

№10

බෝධාසන අඩිහැඳ

Boojate Addehande

№11



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Ipoolay or Wijedande

№12

තුන්දලුහඟ

Toondaloo Hanna

№ 13

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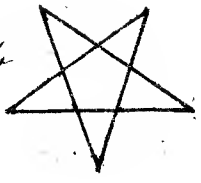
Hatiya

№ 14



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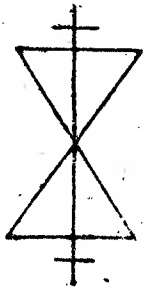
Pasmulla

By Mahabaddes from № 15 to 17

№ 15



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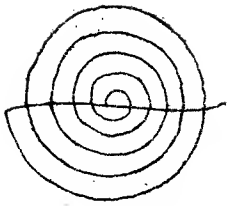
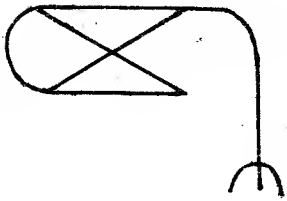
Mada Haná

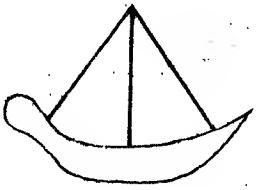
№16  මදුකැරැල්ල

Madoo Kerelle

№17  ලනුකැරැල්ල

Lanoo Kerelle

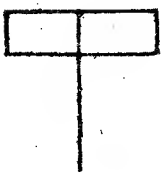
By Fishers from №18 to 21

№18  ඔරුහන

Oroo Hana

№19 මොදරේ ඇල්ල

Modere Alle

№20  මුන්ගරේම

Moongareme

№21 බිලිකටුව

Bilie Catoowe

By Chandos from N^o 22 to 24

N^o 22 ඉට්ටිහන්න

Ittie Hanné

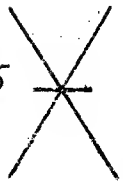
N^o 23 අකුයස්සොහොඳ්
හොඳුව

Akoosse' or Handoowe

N^o 24 විත් කැවිට

Wit-Cavite

By Black Smith №25

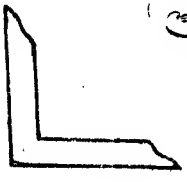
№25  අඳුව

Andoowe

By Carpenter from №26 to 28

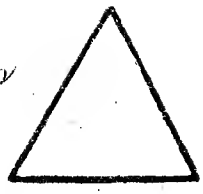
№26. කුම්පාසුව හොඤාන් කැවකටුව

Kumpasoowe or Cawekatoowe

№27  මඩන් පෝරුව

Mattan Poroowe

№ 28



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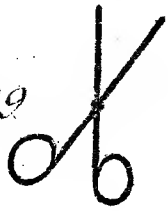
Tunmulla

By Taylors № 29

№ 29



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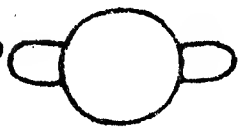
Catooré

By Potters from № 30 to 32

№ 30



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Hoonoo Kotoowe

№ 31

මැට්ටි ඇල්ලේ

Mettie Alle

№ 32

හන්නෙ පෝරුව

Hanne Poroove

By Washers № 33 & 34

№ 33

කොල්ලුගුර

Colli. Mugoore

№ 34 වඩිහැලිය.

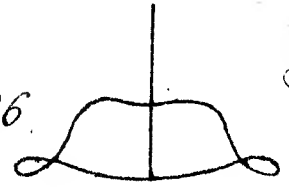
Wadie Heliyé

By Weaver № 35

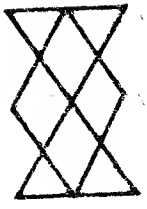
№ 35 වටුහා

Watoonne

By Hakooras № 36 & 37

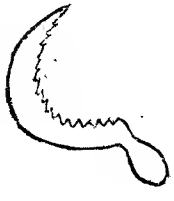
№ 36  දුනුහා

Doonoo Hanne

№ 37  රස්මූන

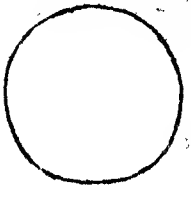
Rahsmoone

By Grass Cutters № 38

№ 38  දැකැත්හන

Decatie Hanne

By Berewayes № 39

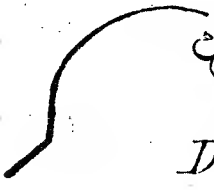
№ 39  රෝටිය.

Rotiye

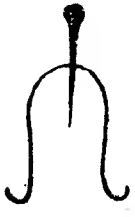
By Tom Tom Beaters from № 40

№ 40 බෙර

Beray

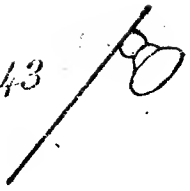
№ 41  දවුල්කොකන

Dawool Cockke

№ 42  මිණිගෙඩිය

Minie Gediye

№43



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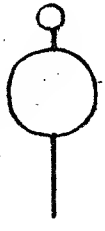
Tammattan Cockke

By Budhist Priests №44 & 45

№44



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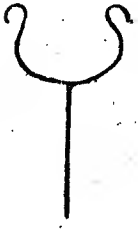
Wata Atte

№45



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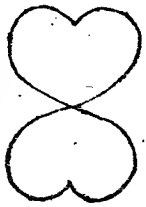
Yackede Sereyatiye

By School Masters Nº 46 & 47

Nº 46



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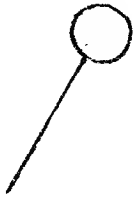
Pally Getay

Nº 47



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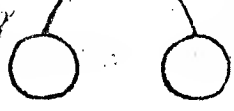
Palemastoriye

By Capoorales Nº 48

Nº 48



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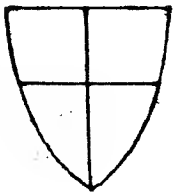
Kannadiye or Calanpat

By Moormen Nº 49 & 50

Nº 49



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Sam Cadoowe

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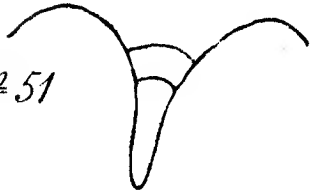
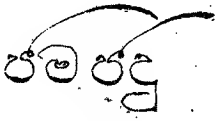
Nº 50

Ande Hande or Ellenpoore

Nº 51

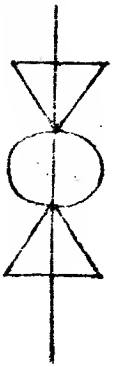




Jamijadoo

By Paduas Nº 52

Nº 52



Badjam Alle

By Moormen of Chilaw

Nº 53

Dagger

Sarnoo-Saadoo

Nº 54

Crescent

Illam Pirrai

as it was done from great antiquity;* and it serves as a more powerful check to cattle-stealing than any which the owner may devise.

Shortly after the enactment in question, when Mr. (since Sir) William Ogle Carr became the Queen's Advocate, he found some difficulty in retaining the different names given for cattle-brands, during prosecutions for cattle-stealing, and requested an officer of the Court to collect the names in a descriptive catalogue. The following is the result of that officer's labours, which I have the honor to present to this Society.

NOTE.

The plates are given in the Appendix in the integrity in which they were found in the original. I regret that I have not been able, as I intended, to add explanatory notes to the names.

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* Arrian states that an Indian nation called Sibæ marked their oxen with a club to distinguish them.—Vol. 2, p. 195.

NOTES ON THE OCCURRENCE OF A RARE EAGLE NEW TO CEYLON; AND OTHER INTERESTING OR RARE BIRDS.

BY S. BLIGH, ESQ., *Kotmalé.*

I HAVE the great pleasure of recording the occurrence of that rare and beautiful eagle, "Limnaetus Kienieri," of De Sparre, called by Jerdon ("Birds of India," page 74) the "Rufous-bellied Hawk Eagle." I shot a fine male example of this splendid-looking bird on the 20th October last; and as it has not hitherto been recorded as occurring in Ceylon, and is rare even in India, the following particulars of its capture and description may be of interest and worth recording.

An hour before sundown, as I was walking by the skirts of a narrow belt of jungle surrounded by patanas, I heard the call-note of a Java Sparrow; being desirous of obtaining a specimen, I went in search of it, and soon discovered a small flock of these birds on the top of a very high tree, evidently enjoying the beautiful evening as much as myself after so many weeks of rain, as they were piping their pleasant notes incessantly. Whilst waiting for the chance of a shot, I saw a large bird of prey leisurely sailing just above the trees in circles, in a very buoyant and graceful manner, rarely flapping its wings, evidently hunting for a supper (on dissection the stomach proved to be quite empty). My little terrier was frisking about some thirty yards off, and on arriving over the spot, the bold bird at once altered its flight, hovering in small circles, with a heavy flapping of the wings, evidently with a view of examining the dog—giving me an opportunity of making a clear but long shot. I brought it down with a broken wing. On going to pick it up, I saw it was an unknown species to me. It put itself in an attitude of defence

at once, and a formidable bird he looked, with beak open, head thrown back, wings spread, and talons ready for action, and its beautiful brown eyes looking so fierce. Securing it with some difficulty, I should have wished to have kept it alive, but found the wing too much fractured. I may here remark, as it may not be generally known, that a good plan of killing large birds, when wounded and desired as specimens, is to tightly press the thumb on the trachea just by the roots of the tongue. I killed the eagle so very quickly without injuring a feather.

I look upon the capture of this rare Indian eagle in Ceylon as not only a highly interesting addition in itself, but also as full of promise that some of the more commoner kinds found in India may yet be added to the local list, as yet not half the species of diurnal raptores found in India have been recorded as occurring in Ceylon.

Jerdon records two specimens only as existing in Indian Museums. My specimen agrees most accurately with Jerdon's description as to plumage, but differs in measurement, mine being smaller and a male. I presume his was a female, as the sex of the specimen he describes is not given, the difference being no more than what is usual between the sexes of raptorial birds, the female being the larger. The species may be readily distinguished from others of the same family in the adult state, having but three colours, each well defined and separate, the whole upper parts black, chin, throat and breast white, a few feathers on the side of the breast having oblong streaks or spots of black, the rest of the under parts rufous, each feather having a faint line or streak of black in the centre, excepting those of the tarsus which are much paler and without streaks, the larger under wing-coverts having but a very narrow inner edge and tip of rufous, the rest black form a very conspicuous band of that color across the wing when extended, the base of the crest feathers pure

white, that of the rest of the body not so pure or tinged with grey; I noticed that the bird did not elevate its crest but slightly above the level of the head. Wings when closed reach within 1¾ inch of the end of the tail; weight, 1¾ lb.; spread of wings, 45 inches; carpal joint, 14½ inches; length, 19½ inches; tail, 9 inches; longest crest feather, 2¼ inches; tarsus, 3 inches; greatest spread of foot, 5 inches; depth of closed beak, 1 inch; eye rich dark brown and 11-16th of inch in diameter.

A few of the upper wing-coverts and the 5th to the 10th primaries have a decided brownish tinge; the 9th and 10th also have a terminal edge of albescent. These feathers I should say, though quite perfect and shew no signs of abrasion, and are quite consistent with adult plumage, indicate that the bird has lately worn a browner livery. Probably the plumage of the first two or three years may bear a resemblance to that of commoner species, and in which stage may not be readily distinguished from them, and thus possibly this rare bird has been overlooked, and suffered their too often inglorious fate in this Island of being stuck on a tall pole as a warning to their congeners that an Appu's rusty gun is only too ready to protect his master's fowls.

NINOX HIRSUTA, *Temm.*

On the 12th November about noon, when making my way through a dense jungle, I suddenly came upon three owls sitting together on a horizontal branch of a low-tree, well shaded with foliage. The instant they knew they were observed, they dashed off in a sudden manner in different directions. I secured one which proved to be an adult male of this species. Three years since, I received a pair in the flesh from Kóṭṭé near Colombo, shewing that it frequents both the low and hill country; they are said to be rare in Ceylon. The above are the only instances I have met

with the species. The stomach contained the remains of beetles and grasshoppers.

CUCULUS CANORUS, *Linn.*—The "Cuckoo."

Now the name recalls "Home" and floods the memory with recollections of far different scenes to those where I procured the second recorded specimen of this rare visitor to Ceylon. The only other specimen was procured by Layard near Colombo many years since. My specimen was flitting from bush to bush on the Harangolla patanas, and was very shy. Its stomach contained the remains of large hairy caterpillars.—(Shot on October 7th, a male in good plumage.)

HIEROCOCCYX VARIUS, *Vahl.*

On the 7th of November I shot a male of this species. Its flight is so like that of a small hawk, that I at first mistook it for one. It seems to prefer the skirts of the jungle bordering grass land to the open country. I flushed it several times before obtaining a shot. The plumage is partially moulting. The stomach contained the remains of grasshoppers.

TRINGILLA ORIZIVORA. "The Java Sparrow."

This well-known cage-bird I believe is often seen in a wild state near Colombo. I have frequently seen them in the jungle here. They are so wild and keep so much to the tops of the highest jungle-trees, in inaccessible places, that I have not yet been able to obtain a specimen. They seem to be quite at home in this wild district, and I think the species is entitled to a place in the future local collection in the Colombo Museum.

ERYTHROSTERNA HYPERYTHRA, *Cabanis.*

So little seems to be known of this lately discovered species, that I watched for its appearance this season with interest, and first observed it on the 12th of October. I heard two on that day in a field of coffee. I was well

acquainted with its call note, having procured specimens in Haputalé in 1869. Not knowing at the time that it had only recently been made known, I looked upon it then as a winter visitor to this Island; now I have no doubt but they leave this for more northern climes for nesting purposes. As I have noticed with many other species of small migratory birds here, so with this; the males precede the females and immature males by several days. By the 24th of the month, their robin-like notes could be heard on all sides, and seemed to be the commonest bird here. Now (18th November) the greater number seem to have moved on, but still they are to be found in every suitable locality. Three or four are now chirping round the bungalow. Their most favourite haunts seem to be thick rocky chenas, interspersed with a few trees bordering on open ground. They are very restless birds; in habit they have much more affinity to the robins and chats than to fly-catchers. Its most common notes are like, "*hwit, jur, tick, tick, tick,*" indifferently uttered, separately or all together, and it has a pleasant little song. When the "*tick, tick,*" is uttered, the bird always elevates the tail, and reminds one most forcibly then of the familiar robin. They are the earliest birds to get up that I know of here; they are early enough to see the bat off to bed, and the other evening when watching one of those creatures breaking its day's fast on a luscious guava, the robin-chat was chirping his goodnight in an orange tree hard by.

[Read 3rd February, 1873.]

EXTRACTS FROM THE RECORDS OF THE DUTCH GOVERNMENT IN CEYLON.

BY R. VAN CUYLENBERG, ESQ.

I BEG to lay before the Society certain notes I have taken from the Dutch Records preserved in the Government Record Office. They comprise extracts from Minutes of Councils held by the Dutch during some time of their rule in this Island. It may be mentioned that their Council proceedings were always opened with prayer.

November 13, 1658.—At a meeting held this day it was resolved that the Council do place on record their gratitude to God for their success in having conquered the Portuguese. They set apart the 20th of that month as a special day of thanksgiving and supplication for His further aid—to be observed by all, under a penalty of one hundred Rix-dollars for neglect of the order. Clergymen required to announce the same from their pulpits.

My next extract is from a Minute of Council bearing date the 10th June, 1659, where the Council after due deliberation on the subject of the welfare and prosperity of the Dutch and Native Burghers come of opinion that it was principally owing to their general apathy that their means were small and accordingly suggest a remedy. They propose that the body of Burghers should have a Captain over them. The qualifications necessary for a person holding this position having been discussed, it was agreed that George Blume the Captain of the Cinnamon Department be selected to fill the post, he being a man of active habits, and one possessing an intimate acquaintance with the people of the country and would be sure to incite them to the pursuit of useful and honest occupations.

Another measure brought before the Council on this day was one having reference to the baking of bread, and it was ruled that the best white bread should weigh 8 ozs., and mixed brown bread 16 oz., and that the price of a loaf was to be 2 stivers* when the parrah of wheat was sold at Rds. 1 18 stivers. Eight Dutchmen and eight Natives (whose names are mentioned) were to have licenses as bread-bakers, and the Captain of the Burghers was to make inquiries and find out what was the number of Christians who were engaged in baking bread, and none were for the future to have licenses to carry on this trade unless they were known to be pious men and regular attendants at divine worship.

20th December, 1659.—At a meeting held this day it was brought to the notice of the Council that out of those villages in the Belligam and Galle Kóralés that yield a revenue to Government, no less than sixty were found to be inhabited by dancing women and other useless people by which the Company suffered a loss. It was therefore decided that they be expelled from thence, and that 300 recently enlisted Lascoryns be sent there on a monthly allowance of one laryn each, and one parrah of rice.

May 24, 1664.—At a meeting held this day it was decided that all Storekeepers and Cashiers employed under Government were to be called upon to give security for the due discharge of their duties, and when neglect of duty was brought home to them they were to be deprived of situation and rank and employed as soldiers.

July 18, 1664.—It was brought to the notice of the Council that there were frequent complaints by Clergymen of the evils resulting from the practice, which was daily gaining ground, of Dutch soldiers marrying women of the country,

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* Stiver—a Dutch coin of the value of 2 cents.

and it was resolved that these marriages should not be permitted to take place for the future, unless a certificate from the Clergyman was produced shewing that the woman professed the Christian religion.

It was also ruled that native women, wives of Dutch soldiers, were to be required to attend the weekly services of the church. The penalty for neglect of this order was that their husbands should forfeit their wages.

October 4, 1667.—Amongst other things that came before the Council on this day was the subject of agriculture in the Galle District, and it was resolved to reward those who were chief in promoting the same in the following manner.

To the Commander, a silver jug weighing 200 Rds.

To the Dissawe, a silver gorget and tray weighing 35 Rds.

To his Assistant, 150 Rds. in cash.

To Lieut. Hans Jacob Boeff, 100 Rds. in cash.

To the Native Chiefs, 150 Rds. in cash.

I BEG to place before the Society certain notes I have made from the Dutch Records, in continuation of the paper presented by me on the 3rd February last. They comprise Minutes of Councils held by the Dutch from November, 1667, to August, 1669.

November, 1667.—The Council resolve to purchase the house of the late Assistant Engineer, Adriaan de Leeuwe, situated in the east end of the street called Prince Street east of the Fort of Colombo, in breadth along the street over against the Fort, six Renish (?) roods, and in length along Prince Street, fifteen roods, for the sum of Rix-dollars 875*. This is interesting as serving to shew the value of property at that time as compared with the present.

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* A rix-dollar = usually from 4*s.* to 4*s.* 8*d.*

November, 1667.—The Council permit Adriaan Baach, as a special favour, to disembark some rice brought from Tutucoreen, the same being contrary to express orders and very detrimental to the progress of cultivation here.

The Council receiving an application from one Clara Van Der Hart, requesting that she may be exempted from paying the duty of 20 per cent., on imported cloth, grant her request, but on the distinct understanding that for the future none should be exempted.

January, 1668.—The Council learning that the ship "Vlaardingen" was sea-worthy, resolve to despatch her to Holland with a cargo of Saltpetre, Pepper, and Cinnamon, along with two other ships. These three vessels to be manned with 185 to 190 men, and to be supplied with all the necessaries for a ten months' voyage.

It is also resolved that the two ships, the "Wassende Maan" and the "Wapen Van Der Jour," that have arrived from Amsterdam, were to be sent back laden with Pepper, and one of them was to carry a chest of Pearls of the late fishery that was bought in for the Hon'ble Company at 38,582 guilders.* The Council moreover learning that these two vessels had performed their voyage to Ceylon in seven and six months respectively, direct that the half reward of 300 guilders be given to the former, and the half reward of 600 guilders to the latter, as ordered by the Hon'ble Company, which was to be expended in procuring necessaries for the return voyage.

The Council also set apart the 2nd of February as a day of supplication and fasting, owing to the departure of these ships for Holland.

The Council learning with pleasure that a new arrival by one of these vessels, in the person of Serjeant Cornelius

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* Guilders, Dutch coin=38 cents, or 1*s.* 9*d.*, Rs. 14,661 and 16 cents.

Seybol, was a Lawyer and an Advocate, it was decreed that he be made a member of the Council of Justice, and receive the salary of a junior merchant.

March, April, 1668.—Amongst other instructions by the Council on ecclesiastical matters, were the following. The native languages were to be learnt by all Clergymen. The Sinhalese and Tamil languages were to be used instead of the Portuguese, which was to be discontinued.

Slaves were not to be permitted to wear hats or long hair, who were not able to speak the Dutch language intelligibly.

August, 14, 1668.—The Council on hearing that certain fishermen were about to relinquish their calling, and being of opinion that the same would be prejudicial to the public, appoint a Committee to revise the list of the fishers, and to enjoin these men to continue to pursue their calling according to ancient usage.

May, 1669.—The Council finding that the cocoanut plantation at (Souti Tangh) yields a revenue of not more than 1,260 rds. per annum, against an outlay of 620 rds. per mensem, resolve on renting it out to the Burgher Louis Tramble at 900 rds. per annum from the 21st June next to the end of February, 1671.

July, 1669.—The Council offer a reward of 400 laryns* to the person who shall produce the body of a certain murderer, alive or dead.

August 5, 1669.—The Council commute the sentence passed by the Court of Justice on Cappure Camby Chetty of Hunnupittia for adultery, which was, that he be hanged by the neck until he is dead, and his corpse be put into a sack and thrown into the sea: thus—that he be whipped severely beneath the gallows, branded and banished from the Island, and interdicted from returning to it on penalty of forfeiting his life.

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* Laryn.—A Portuguese coin.

THE STATURE OF GOTAMA BUDDHA.

BY JAMES D'ALWIS, M. R. A. S.

THERE is no statement in any part of the Buddhist Canon regarding the stature of Buddha, or the ordinary stature of man in his age. Nor, so far as my investigations have extended, have I found any allusion to them in any of the Commentaries to the Canon. Dimensions, however, are recorded of habitations, furniture, clothes, &c., designed for the priesthood; and they are generally expressed by the terms "sugata vidatthi." At the place, where it is first mentioned (vide *Vinaya Piṭaka*, lib. 1, chap. 4) Buddhaghosa defines the measure thus:—

Sugata vidatthi náma idáni majjhimassa purisassa tisso vidatthiyo vaḍḍhakí hatthena diyaḍḍho hattho hoti—*i. e.* '*Sugata vidatthi*, is three spans of a middle-size person of this (age), and one and a half cubits by a carpenter's cubit.'

Upon the above authority, and on the supposition, I believe, that by sugata, "Buddha's" was meant, the calculation of his height is in this wise. Taking Buddha's span to have been the length of "three spans of an ordinary person," and giving nine inches to the ordinary span, the *sugata* span is put down at (three by nine, equal to) twenty-seven inches. Two spans being generally considered to be a cubit, or the length of the lower-half of a man's arm; and four times that length being the average height of a well-proportioned man—Buddha's stature is said to have been (twenty-seven × two × four, equal to two-hundred and sixteen inches, or) eighteen feet.

It is not easy to ascertain with precision if Buddhaghosa in his gloss meant, by sugata vidatthi, "Gotama Buddha's

span," and thereby intended to give his height. He does not anywhere state, on what authority he, nine and-a-half centuries after the sage's death, fixed the standard of this measure, by which he would assign to Buddha's stature three times the average height of a middle-size man of his age. It is indeed extremely doubtful, that in this explanation he simply translated what Mahinda had previously stated in his Siṅhalese Comment; for Buddhaghosa unquestionably refers to the size of a span of *this*, *i. e.*, his age; and it will be observed, that 700 years had then elapsed since Mahinda wrote his Siṅhalese Commentary. That Buddhaghosa was therefore led into an error, from a misapprehension of the expression sugata, there is less reason to doubt, than that he was misled by any traditional account that might have come down to his own times; for, there is abundant testimony in the Tepiṭaka to prove that Gotama was an ordinary man of his age. What, therefore, was the height of man in the 6th century B. C., or what was meant by *sugata vidatthi* in the Institute already noticed, will form the subject of investigation in this paper which I respectfully submit to this Society.

Anciently people wrote the most extravagant things of man and his nature. Their books abound in the marvellous. We read of giants, and gigantic men. Even the Old Testament, using the current phraseology of the times, alludes to them in different places, in the same way that the Mahavansa speaks of them as once existing in Ceylon. But, I believe it may safely be affirmed that these giants were no more gigantic than the Yakkhas of Mahánama; or that the latter were no more devils than the "evil demons," who, according to Buchanan's History of Scotland, "having been allied to the daughters of Diocletian, begot giants, whose descendants remained even at the landing of Brutus." The giants of the Bible, and the Mahavansa were

doubtless extraordinary men, both in stature, valour[1] and strength, like a Nimrod, a Níla, or a Porus.[2] That they were great in stature we readily believe; but that they were three times taller than men are at present, to say the least, has not been proved. That "the mighty men of old" were in stature greater than mankind of the present day, may, moreover, be conceded on the ground that they were also long-lived. But, when the average age of man came down in round numbers to 100 years, that man generally retained his abnormal stature cannot be easily credited. All that can be safely predicated of such, is, that people of extraordinary stature have appeared from time to time, like men of extraordinary mental calibre. Not a single statement in any book authorizes the conclusion that mankind were altogether gigantic in stature after the date assigned to the flood. If Goliath was ten feet seven inches high,[3] Moses was by no means of the extraordinary height which he records. If, again, the ten warriors of Duṭṭhagámini were

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1 Mahawanso calls them "warriors," p. 137.

2 Arrian says that when Alexander saw Porus "he stopped his horse, and was seized with admiration at his tallness, for he was above five cubits." Five cubits are equal to about seven and half feet of our measure. Plutarch, p. 37, says, that, according to most authors, he was reckoned to be four cubits and a hand's breadth; but Raderus thinks that his four cubits ought to be five; because Eustathius in his notes to Dionysius, ver. 1027, tells us, that many of the Indians were above five cubits high. Curtius gives us no certain rule by which we may guess at his stature, he only affirming, lib. viii., chap. 13, 7, "that Porus exceeded the common height of men, and that his elephant as far surpassed the rest of the elephants in bulk, as he did the rest of his army in strength and stature." Diodorus, p. 559, adds, that "his body was so big, that his breast-plate was twice the dimensions of the rest."—See *Arrian's History of Alexander*, *vol.* ii, *p.* 37.

3 1. Sam., xvii., 4.

strong men, it is nowhere stated that they reached even the alleged height of Goliath.

It may be perfectly true that, anciently, men varied in stature in different regions of the world, as they do now. Those who were of Anak's race might have been of such extraordinary height that the Israelites looked like grasshoppers before them.[1] Some of the European nations may excel the Londoners of the present day. So likewise, the Indians might have been a well formed people, measuring much above the average height of other nations. We may go farther, and admit, that even in one and the same region, the distinctive character of each race of man was, and is highly variable.[2] It has been also noticed that there was a difference in stature between the Polynesian Chiefs, and the lower orders within the same islands.[3] In like manner, the Prussian Grenadier Guards present a striking difference to the rest of the same nation. Further, the self-same Indians of the time of Alexander, as Arrian states, were "taller in stature than all the rest of the Asiatics."[4]

But, we can by no means believe that they were eighteen feet high. For, the utmost height which the self-same historian gives to "many of them" (*i. e.*, the class of Indians just above described) is "little less than five cubits." Five cubits, however, is not a very marvellous height of man even in modern times.

The result of modern investigations is, that the tallest man who ever lived was no more than nine and-a-half feet high. The skeleton that was found on the site of the

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1 This is simply a form of expression, or figure of speech to heighten the idea of extraordinary height.

2 Darwin's Descent of Man, 1, p. 225.

3 *Ibidem*, 115.

4 Arrian's History of Alexander, vol. ii., p. 9.

Roman camp at St. Alban's was only eight feet high.[1] A Swede, once in the Prussian army, was found eight and-a-half feet high. Charles Byrne, or O'Brien, an Irishman, whose skeleton is in the Museum of the College of Surgeons, London, was eight feet four inches high when alive.[2]

Now, there is no satisfactory evidence to shew that Gotama exceeded in height, any of the above persons. Nor, on the other hand, can we believe that he was of the height of the "many" Indians, whom Arrian describes as having been "little less than five cubits high;" for, he is unquestionably represented in the Buddhist canonical works, as we shall hereafter shew, as an *ordinary man* of his age; and Arrian himself records that "five cubits" was such an extraordinary stature, that Alexander the Great "was seized with admiration" (amazement?) at the tallness of Porus (for he was above five cubits high), as well as at his beauty, and the justness of the proportion of his body."

The maximum age to which people lived in the times of Gotama was in round numbers one century;[3] and it is the same that is assigned in Buddhist works to men of the present day. The fact is indeed undoubted, that he had not attained the age of a Mathusela, or that of any other antediluvian, or other ancient personage mentioned in Buddhist works; or much less the age of Henry Jenkins of Yorkshire, who was 157 years old at his death in 1670.[4] For, Gotama died in the "fulness of time," when he was only "fourscore" years of age; and it must be borne in mind that the

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1 Philosophical Trans., No. 333.

2 Penny Cyclopedia.

3 See *Parinibbána Sutta*, translated by Turnour in the Bengal Asiatic Society's Journal.

4 See Lardner's Annual Physics, p. 693.

Buddhists nowhere venture to state, that the people generally of the age of Gotama were eighteen feet high. We shall now turn our attention to some of the legends regarding Gotama Buddha.

i. It is said that Nanda, Gotama's foster brother, who was four aṅgulas shorter than Gotama, wore a robe in size equal to that of the sage.

ii. More authorities than one, consisting of the Canon and the Gloss., mention the fact that Gotama exchanged robes with Mahá Kassapa; and that they both used the robes of each other.

iii. It is expressly stated that Mahá Kassapa was a middle-size man of his age.

iv. When king Ajátasattha visited Maṇḍamálaka, the monastery in Jívakambavana in Rájagaha, he saw, and entered the presence of a large concourse of priests surrounded by Gotama; and yet, seeing nothing extraordinary in Gotama different from those by whom he was surrounded, asked an Ajívaka *where Buddha was?* The Ajívaka replied, "Mahárája, he is the same (person), who, facing the east, and leaning against the central pillar, is seated, surrounded by the bhikkhus and saṅghas."

v. There appears to have been so little, if any, difference between Gotama and his disciples, that when the Bráhmaṇa Sundarika Bháradvája saw Gotama with his head covered, he approached him, mistaking him for one of his fraternity; and, when he afterwards saw his bald head, the Bráhmaṇa left the sage in disgust.

vi. When king Pukkusáti of Takkasilá heard of the great renown of Gotama Buddha, he went down to see him; and on his way, met the sage in a public hall, and entered into conversation. It was not until they had spoken together for a good while that the sage was recognized. Nor even then was it, indeed, from any personal characteristic

which distinguished him from the rest of mankind. It was after he had been told of the fact.

Without multiplying authorities to prove, what is already manifest, that Gotama Buddha was an ordinary man of the 6th century B. C., we may now proceed to consider the passage in the Vinaya, from which it is inferred that he was eighteen feet high.

This inference is drawn, it is believed, from a misapprehension of the meaning of "sugata" in *sugata vidatthi.*

Sugata, it is true, is an appellative for Gotama. The Buddhists in Ceylon, following the definition of Buddhaghosa, interpret sugata as "Bauddha" or "Buddha's," and *sugata vidatthi* as "Bauddha span," or "Buddha's span." A little reflection, however, must convince the reader that such could not be the meaning of this word. Gotama was a man either of extraordinary, or ordinary stature. If the former, and if moreover by sugata his *ownself* was meant, it is quite clear the measures given by the phrases *sugata vidatthi*, and *sugata aṅgula*, were exceptional, and therefore conveyed no correct notion to any person who had not previously known the exact size of Buddha's hand or finger: and it is remarkable that *that* measure is not stated by the law-giver in any part of his Canon, which was intended for priests scattered about in different parts of the Majjhimadesa,—some of whom had never seen the sage,—and for priests who might come into existence centuries after his death. We are, therefore, constrained to distrust, that he meant by sugata vidatthi his own span—the size of which is not stated. That he did not mean the ordinary span, which might vary from age to age is sufficiently proved by the use of sugata before vidatthi.

On the other hand, if, as we may abundantly prove, Gotama was an ordinary person of his age, it is simply absurd to believe that he would speak of an ordinary

common measure by reference to his own span; or by qualifying it by the word sugata. It would be far more reasonable to believe that he had referred to a particular measure in use, or to any other that was then sanctioned by usage or authority. Indeed it may be believed that he meant, not an ordinary measure, but one of several measures which were known in his time. It may be then inquired; if sugata does not mean Bauddha, can it have any other sense? We are not at a loss to assign to it that "other sense." Sugata, from *su* 'well,' and *gata* 'taken, received, accepted,' besides being a name for Buddha, means 'approved,' 'accepted,' 'well received;' equal to 'standard, imperial.' With this interpretation before us let us investigate the meaning of the expression *sugatassa* and *sugata* in the following passage in the Vinaya, lib. 2, chap. i., section 5.

Yo pana bhikkhu sugata cívarappamánaṇ cívaraṇ kárápeyya atirekaṇ vá chedanakaṇ pácittiyaṇ—tatrí'daṇ sugatassa sugata cívarappamánaṇ díghaso nava vidatthiyo sugata vidatthiyá tiriyaṇ cha vidhatthiyo—idaṇ sugatassa sugata cívarappamánaṇ . . ti .

Before critically examining the meaning of *sugata* in the above Institute, it is necessary to examine the cause which led to its enactment. Nanda, Buddha's foster brother, who was a priest, once wore a robe as ample as the one usually worn by Buddha. Other priests, seeing Nanda at a distance, and mistaking him for Gotama, evinced the usual marks of respect; but soon found out their mistake, and expressed their disapprobation of the conduct of one of their fraternity. Now, it was to meet the wishes of those who had been deceived, that Gotama enacted the above rule. If then we translate *sugata* as Bauddha, the above rule will run as follows:—

"Should a priest cause to make a robe of the size of Buddha's robe, or in excess, [he would commit] Pácittiya, and [the excess]

should be cut off. Here; this is the size of Buddha's *bauddha* robe—nine vidatthi long in Buddha's vidatthí, and six in width. This is the size of Buddha's *bauddha* robe."

From a careful perusal of Buddha's edicts we find that, where one matter or thing is stated in one set of words, the same set of words is repeated, as in an old act of Parliament, where the same matter or thing is again referred to. In the edict before us, however, we have a deviation from this principle of Buddhist composition. We have sugata cívara in the beginning, and sugatassa *sugata* cívara twice repeated afterwards. But, where vidatthi is mentioned sugata alone occurs here as elsewhere,—shewing clearly an omission of sugatassa before the first sugata; and shewing, moreover, that a different meaning was intended by *sugata* when used adjectively. If we render *sugata-cívara* as Buddha's robe, we can assign no meaning to the word *sugatassa* which precedes the expression. That word, moreover, is a noun in the genitive case, and is not given as an attributive of *cívara*, which *sugata* is. Taking then *sugatassa* to mean "Buddha's," *sugata* which follows must have a different meaning, and we perceive no reason whatever not to assign to it the meaning of "the accepted," in the sense of the "authorized robe," *i.e.*, the robe approved by usage, or prescribed by rule.

By supplying the supposed omission, which, I must not omit to state, is found in all the books, to which we could gain access—and assigning to sugata the meaning of 'approved,' or 'the imperial,' the Pali text may be translated, thus:

"Should a priest cause to make a robe [exactly] to the dimensions of Buddha's approved robe, or in excess, he shall be guilty of pácittiya; and the excess [over the prescribed dimensions[1]] shall

1 We have supplied the words by reading the text in connection with the following rule, which prescribes the dimensions of a priest's robe:

be cut off. Here,—this is the size of Buddha's approved robe,—nine vidatthi long, in *imperial* vidatthi, and six in width. This is the size of Buddha's approved robe."

Applying, therefore, to the word *sugata* the same sense when it is added to *vidatthi* or aṅgula, we cannot, we apprehend, be far wrong if we interpret sugata-vidatthi as the "accepted span," "the legally prescribed span," as opposed to "the span measured by the extended thumb, and little finger."

Let us then venture to ascertain what this, if I may so call, *imperial* measure was? It is stated that twelve aṅgulas make a vidatthi or span; and two vidatthi's a hâstha, [or ratana, Páli] 'the lower half of the arm."

Vidatthi is a Páli form of the Sanskrit word *vitasthi*. It was a measure known to Bráhmans as well as Buddhists. According to both, it is "a long span, measured by the extended thumb and little finger"; Asvaláyana Grihyas iv. 1. Both are agreed as to a *span* being considered "equal to twelve aṅgulas or fingers." [*i. e.*, finger's breadth.]

Now, to determine the exact value of aṅgula mentioned in any system of lineal measure, one must naturally look to the unit from which it is raised. This unit, according to the Abhidhánapadípiká, is a *likkhá* or dot; and, according to the Amarakósa, a *yava*, or "barley corn." It is however impossible to form a correct idea as to what this *likkhá* was, or what was the size of the *yava*, "proceeding downwards to the *paramánu*, or the 'most minute atom,' according to the authoritative works of the Hindus."[1] The Greek writers on India have given extraordinary accounts of the size of

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Pacchimantena saṅghâti dîghato muṭṭhi pañcakaṇ
Muṭṭhittikaṇ ca tiriyaṇ tato ûnaṇ navattati:

'The outer robe [shall be], at least, five short (cubits) in length, and three short (cubits in width—less (shall be) unlawful.'

1 Princep's Ind. Antiq., vol. ii. Part 2, p. 122.

grains. Herodotus speaks of "a sort of Indian seed about the size of the panicum in a cod."[1]

Being thus compelled to abandon all attempts to arrive at a satisfactory conclusion by "beginning from the beginning," we shall next resort to some intermediate measure, which, as it refers to, and is descriptive of, a member of the human body, may be looked upon as the basis of all measures in ancient times. This is aṅgula, or finger being one-twelfth of a vidatthi or span—twice its length being equal to a *hâstha*, San., or *ratana* Páli, "a cubit." Princep, in his Useful Tables, treating on the subject says, "That the cubit was of the natural dimensions (of eighteen inches more or less) can hardly be doubted. [?] Indeed, where the *hâth* is talked of, to this day, among the natives, the natural human measure is both understood and practically used, as in taking the draft of water of a boat, etc. In many places also, both in Bengal and in South India the English cubit has been adopted as of the same value as the native measure."[2] Here, it may be conceded that the hastha was also of the natural dimensions of the lower half of an ordinary well-proportioned man's arm; but, we are not therefore warranted in putting down its length in ancient times as having been *eighteen inches*, especially in an investigation to ascertain through its means, the stature of ancient Indians, which is variously stated by different writers. And this difficulty is the more increased, when we find that the linear measure in ancient India was totally altered during Akbar's administration, and that "the introduction, since, of European measures in the British Indian territories, and in the Dutch and Portuguese settlements before them"[3]

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1 Herodotus, Thalia iii., § 100.

2 Princep's Ind. Antiq. ii., Part 2, p. 122.

3 *Ibid.*

has contributed not a little to confound all calculations upon the basis of the natural dimensions of the *hâstha*.

It is, therefore, I apprehend necessary that we should fall back upon *aṅgula* "finger's breadth." Upon this too, no accurate calculations can be made. For that too must have varied according to the size of the men of a particular age or locality. Treating on this subject, says Thomas in his Useful Tables:

"The *gaz*, or yard, now in more general use throughout India, is of Muhammadan introduction: whether this is derived also from the cubit (for the Jewish cubit is of the same length) is doubtful; but, like the *hasta*, it was divided into 24 *tasús*, or 'digits,' corresponding more properly to inches.

"Abú-'l-Fazl in the 'Ayín-i Akbarí,' gives a very full description of the various gaz in use under the emperors, as compared with the earlier standards of the Khalífs. He expresses their correct length in finger's-breadths, which may be safely taken as three-quarters of an inch each.

"For facility of reference, his list is here subjoined, with the equivalents in English measure at this rate:—

ANCIENT GAZ MEASURES ENUMERATED IN THE 'AYÍ'N-I AKBARÍ'.'

	English.
The Gaz-saudá of Hárún-al-Rashíd = 24⅔ (some MSS. have 25⅔) fingers of an Abyssinian slave, the same used in the Nilometer of Egypt[1]	= 18½ in.
The Kasbah gaz, of Ibn Abílílah = 24 fingers	= 18 ,,
The Yúsufí gaz, of Baghdád = 25 ,, ...	= 18¾ ,,

1 The cubit of the Nilometer is supposed to be the same as that of the Jews, which is exactly two feet English:—if so, the 24 digits will be, precisely, inches. Volney, however, makes it 20½ French, or 22 English inches. Some allowance must probably be made for the broad hand of a negro, but the other measures will not be affected by the same error, as they must be referred to the ordinary delicate hand of a native of Asia.

			English.
The small Hashamah gaz[1] of Abú Músa Asharí	= 28⅓	„	= 21¼ in.
The long Hashamah gaz of Mansúr 'Abbás	= 29⅔	„	= 22¼ „
The Umríah gaz of the Khalif Umr	= 31	„	= 23¼ „
The Mámúníah gaz of Mámún 'Abbásí	= 69½	„	= 52⅛ „
The gaz Masáhat	= 28	„	= 21 „
Sikandar Lodi's gaz of 41½ silver Sikandarís' diameter, modified by Humáyún to 43 Sikandarís	= 32	„	= 26 „

This was used in land measurements till the 31st year of Akbar."

Major-General Cunningham[2] also puts down the Indian aṅgula at "somewhat under three quarters of an inch," and, adds :—

"By my measurement of 42 copper coins of Sikandar Ludi, which we know to have been adjusted to fingers' breadths, the *angula* is ·72976 of an inch. Mr. Thomas makes it slightly less, or ·722·9. The mean of our measurements is ·72632 of an inch, which may be adopted as the real value of the Indian finger, or *angula*, as I found the actual measure of many native fingers to be invariably under three-quarters of an inch. According to this value the *hasta*, or cubit, of 24 *angulas* would be equal to 17·43168 inches, and the *dhanu* or "bow," of 96 *angulas* would be 5·81 feet. But as 100 *dhanus* make one *nalwa*, 100 *nalwas* make one *krosa* or kos, it seems probable that the *dhanu* must have contained 100 *angulas* to preserve the centenary scale.[3] According to this view

1 These two are also called the Gaz Mullik and Gaz Ziádiah, because Ziád, the adopted son of Abú Sofián, made use of them for measuring the Arabian Irak.

2 See his Ancient Geography of India, p. 575.

3 The same confusion of the numbers 96 and 100 exists in the monetary scale, in which we have 2 *bâraganis*, or 'twelvers,' equal to 1 *panchi*, or 'twenty-fiver.'

the *hasta*, or cubit, would have contained 25 fingers instead of 24, and its value would have been 18·158 inches, which is still below the value of many of the existing *hastas*, or cubits of the Indian Bâzârs."

That this measure falls very far short of the Buddhist vidatthi may be proved by the following references to the Vinaya.

1. A priest's habitation should be twelve by seven spans from wall to wall.—*Vide* lib. 1, cap. 2.

Taking a span or vidatthi at nine inches, the room will prove to be nine, by five and a quarter English feet. Though Gotama enacted this rule with a view to economy, and to shew that large spacious halls, which his followers "had been unable to complete," were inconsistent with the "beggarly" character of the monastic system which he founded; yet, on the other hand, I am inclined to believe that he could have scarcely considered that an apartment of nine by five and-a-quarter feet would be sufficient for the occupation of a priest. At least, the width is such as to render it fit for nothing more than stretching one's self down to sleep.

2. The height of a bed or chair should be eight aṅgulas.—*See* lib. 2, cap. 1, rule 5. At the above rate of calculation this height will represent six English inches. There is no doubt that the object of this rule, as stated in the legend, was the prevention of "high seats,"—but at the same time we cannot help thinking that a seat above six inches from the ground was inconveniently low.

3. The regulated dimensions of a cushion or carpet are two, by one and-a-half spans, which will be equal at the above rate, to eighteen, by thirteen and-a-half English inches.

This may not appear to be an unreasonable or inconvenient size, representing as it does the size of an ordinary chair of the present day, but it is very remarkable that the very

rule which follows the above provides for an enlarged cushion or carpet. The reason stated in the legend is not without importance. A priest by the name of Udayí once sat upon a cushion of the above dimensions, and it was thoroughly covered over by his robes, and Buddha altered the above rule by

4. Adding 'a span of fringe to the above dimensions'.—*See* lib. 2, cap. 1. This will raise the dimensions to twenty-seven by twenty-two and-a-half inches—a space which certainly suffices for the stoutest man to occupy. But the next rule, as well as the first, which we have noticed, suggests the propriety of an increased standard for the measurement of the vidatthi.

5. It was necessary to provide for those afflicted with cutaneous diseases, with an under-shift, *i. e.*, a coil of cloth round the loins; and the prescribed dimensions of this is four by two spans;—*See* lib. 2, cap. 1, rule 8.

This in English measure will be three feet by one and-a-half feet. Supposing that the object was to prevent the robes being saturated with matter in that part of the body which is generally put into action by sitting down, it is not reasonable to believe that three feet correctly represented the rotundity of an ordinary man; and from experience in this country, we find that that length is barely sufficient to go round the broader part of an ordinary man's body.

6. In examining the provision as regards a bath-cloth of a priest, we find it to be six by two and-a-half spans, or four and-a-half feet by twenty-two and-a-half inches.

The twenty-two and-a-half inches represent the width, that is the space between the waist and the knee; and though four and-a-half feet would be just sufficient to cover the nakedness of the body; yet, it will be granted, that in order to give to all these rules as a body, reasonable effect, we must raise the standard of our measure; especially in

view of the same rule, as adapted to the priestesses, which is—

7. That the bath-cloth of a bhikkuní should be four, by two spans, or three feet by one and-a-half feet.

This is ridiculously low according to our modern notions of propriety. Making all allowances for the narrow and illiberal views of society in general in remote antiquity, and the contempt with which woman was held by mankind in those days, Gotama Buddha not excepted,—we may not be surprised, that, in regulating the size of the garments for women, the sage reduced the dimensions prescribed for the males. Yet, judging from the great good sense which predominates his social ascetic system, we are justified in expecting from the law-giver a rule by which he effectually carried out the object for which a bath-cloth was at all provided—the concealment of shame. Bearing in mind that ablutions in the age of Gotama were performed in public places, and at open ferries (see *Vinaya* lib. 4) we certainly think that the same dimensions of a wrapper, intended as an under shift in the case of males afflicted with cutaneous diseases [vide *Supra*, Case 5], would scarcely suffice for women bathing at public rivers. Not only this, but the following rule which regulates the size of Buddha's robe clearly indicates that the standard of our measure should be raised.

8. The size of Gotama Buddha's robe is nine by six spans, equal to six and three-quarter by four and-a-half feet.

If the height of man in the age of Gotama was six feet, a robe of six and three-quarter feet, making allowances for a coil round the shoulder would scarcely fit him "from neck to ankle," but the same cannot be said of the *width* of the robe of a "decently clad" priest, which is put down at four and-a-half feet—little above the length for a wrapper provided for by rule given in the fifth case cited above.

Abandoning therefore the standard of nine inches for a *vidatthi*, we shall here notice what has been said on the

subject by a learned Buddhist priest of Siam named Raṇsisúriya-bandhu. He agrees with us that Gotama was an ordinary, or a middle-size man of his age, and cites much of the very circumstantial evidence which we have been at great pains to collect in proof of the fact. He does not, however, understand by sugata vidatthi an imperial measure, but takes it for granted, that by it Buddha's span was meant. He ridicules the idea of a *sugata vidatthi* having been, as stated by Buddhaghosa, three times the length of the span of an ordinary man of his age. And, though he holds the ancients in high esteem, and acknowledges that to them we are greatly indebted for much of what we know; he nevertheless affirms that in this respect Buddhaghosa's account cannot be accepted, and concludes that part of the subject by—not calling the ancients, as Lord Brougham did, "children" as compared with the age of moderns,—but, boldly asserting, that "we are not the slaves of the ancients."

In fixing Buddha's height, he says[1] —"Buddha was by one-fourth taller than an ordinary man of *his* age. That is, when you divide such an ordinary man's height into three, three such parts, plus one more, constituted Buddha's height.[2] Buddha's height, he adds, was, by the carpenter's cubit of the present day, 129 inches.[3] His fathom was of the same length.[4] The height of man in Buddha's age was nincty-two aṅgulas[5] and one kalá.[6] Their fathom ninety-seven aṅgulas.

"Now that twenty-three centuries have elapsed since the death of Buddha, and we are in the twenty-fourth century,

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1 Free translation from the Páli.

2 *i.e.*, He was taller by one-third the height of an ordinary man.

3 *i.e*, ten and three-quarter feet.

4 He agrees here that the height was four times the hâstha.

5 *i.e.*, little more than seven and two-third feet.

6 And yet he says Buddha was an ordinary man.

we find the height of man to be seventy-five aṅgulas[1]; and their fathom, eighty. *Century after century the height of man is reduced by three kalá.* The height of a child born *in that age,*[2] is fifteen and three-quarter aṅgulas, by the finger's breadth of a man of the present age. *The growth of man is at the rate of two and-a-quarter angula per year, from his birth to the completion of his twenty-sixth year.* Then his height in his twenty-sixth year is seventy-four and-a-quarter aṅgulas. The height of a child born in Buddha's age was eighteen and-a-quarter aṅgulas in Buddha's aṅgula. He grew till thirty-three years of age, at the rate of two and three-eighth aṅgulas; and when he had attained his thirty-third year he was 129 inches by the carpenter's cubit.

"*The maximum age of man in Buddha's time* (Ransisuriya-bandhu continues) *was* 100 *years. That of man at present is seventy-seven.* Thirty-four aṅgulas of an ordinary man of Buddha's age are equal to twenty-four and-a-quarter inches of the carpenter's cubit. Seven masa, or undu seeds constituted the size of the aṅgulas of an ordinary man of Buddha's age. Those kinds of seeds may be taken as equivalent to seeds of paddy. Be it known, that an inch by the carpenter's cubit represented the aṅgula of an ordinary man who lived .50 years after Buddha. The custom in Siam at present is to accept one-fourth of a carpenter's inch as a kalá, and one kalá as four anu-kalás; that is, at the rate of seven seeds for an aṅgula. This agrees with the lineal measure given in Abhidhánapadipiká, and Sammohavinodaniya."

Amidst much that is interesting and contradictory, we notice that the writer has made his calculations on the

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1 *i. e.*, six feet three inches.

2 MS. doubtful, contradictory.

supposition that man's stature is reduced by three kalá every century,—a dictum for which there is no more foundation or authority, than for the statement that "the average age of man was greater in Buddha's age" than it is at present. Yet, in testing his measure by the cases already considered we obtain the following results.

Taking the Siamese author's aṅgula (*i. e.*, sugata aṅgula) to represent two inches, that is treating an aṅgula as one-twelfth of a carpenter's two feet rule, we find that

1. A priest's residence was twelve by seven feet.
2. The height of a bed sixteen inches.
3. A cushion or carpet two by one and-a-half feet.
4. The same, with a fringe of one span, will make it three by two and-a-half feet.
5. The under shift four by two feet.
6. A priest's bath-cloth six by two and-a-half feet.
7. A priestess' bath-cloth, four by two feet;
8. And Buddha's robe measured nine by six feet.

If these results are on the one hand in excess of our notions of propriety, from a general view of the principles of ascetism upon which Gotama seems to have enacted his rules—the evidence which we have adduced on the other, as to the stature of Indians in Buddha's age, leads to the conclusion that the dimensions produced upon the standard of Buddhaghosa's measure is inadmissible; and that therefore the standard itself must be rejected. For, according to him —*i. e.*, at twenty-seven English inches per span

1. A priest's residence would be twenty-seven by fifteen and three-quarter feet—a spacious hall more than enough for a nobleman's sitting room even at the present day.
2. A cushion or carpet; four and one-third feet, by three feet four-and-a half inches—would be quite an inconvenient appendage for even an ordinary chair, for which the carpet was intended;

4. The same with a fringe of twenty-seven inches, equal to six and three-quarter feet by five feet seven and-a-half inches, would render its size unreasonably large;—

5. An under shift nine by four and-a-half feet;

6. A bath-cloth, ten feet one and-a-half inches by five feet seven and-a-half inches;

7. The same for a priestess, six and three-quarter feet by three feet four and-a-half inches; and

8. Buddha's robe, twenty and one-third by thirteen and-a-half feet.

In confining our remarks to the last case, it may be stated that the length of the robe is to go round the body, and that its width represents the length to which it is to hang down from the neck. If, therefore, Buddha was eighteen feet high according to the standard measure of Buddhagosa, it is quite evident that the prescribed robe of thirteen and-a-half feet would, with the folds round the neck, scarcely reach his ankle when hung from his shoulder, as it should according to rule; see Vinaya.

Hence, we are again forced to abandon all the measures founded upon the supposed length of the Mohammedan *gas*, or the Indian aṅgula, the Siamese standard, and Buddhagosa's lineal measure of twenty-seven inches for a span; and to resort to conjecture founded upon circumstantial evidence, which we shall here notice.

(i.) Both Buddhist and Brahaman writers are agreed as to vidatthi or vitasthi being, not "the span," but "the *long* span." By "long span" is doubtless meant a measure different from the ordinary span, measured by extending "the thumb and the little finger." That difference consists, moreover, in the vidatthi being *longer* than a span, which may be put down as nine English inches. This is further confirmed by Buddha, who lays down in his Canonical Rules, that the vidatthi meant by him was the

sugata, not the common, but (see ante) the *imperial* measure. The Greeks would also have us believe that the Indians were larger than the ordinary people of other Asiatic regions. It is thence also reasonable to believe that their span was larger; and, they being nevertheless various, a standard measure was doubtless fixed upon, as the sugata vidatthi or "imperial span," two of which made a *hâstha* or "cubit." This is the same cubit of which Major-General Cunningham says is longer than 18·158 inches, and which, he adds, is still the "hâstha of the Indian Bazaars." This is moreover generally believed to be the "carpenter's cubit or the carpenter's two-feet rule," which to this day is used in Ceylon—par excellence—as "the cubit."

ii. When again, we find in History that the ancient Indians kept a constant intercourse with the Egyptians, and that between their habits and the Israelites there was scarcely any difference, we are naturally led to resort to Egyptian and Jewish standards for the ascertainment of the standard for the Indian cubit. Thomasz says, "The cubit of the Nilometer is supposed to be the same as that of the Jews, which is exactly two feet English:—if so, the twenty-four digits will be precisely inches"; and it is very remarkable that the constituent parts of a hâstha are twenty-four aṅgulas; and aṅgula or finger is still the word which the Buddhists of Ceylon use to express a carpenter's inch, or an inch according to the English standard. This measure, when again applied to the height of a man (which is generally four times a hâstha, we obtain eight feet as the stature, nearly the height of an Indian's height, as stated by the Greeks in round numbers, to be "five cubits" or seven and-a-half feet.

ROYAL ASIATIC SOCIETY,

CEYLON BRANCH.

PROCEEDINGS.

1873—4.

COLOMBO:
WILLIAM HENRY HERBERT, GOVERNMENT PRINTER, CEYLON.

MDCCCLXXV.

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CEYLON BRANCH.

PROCEEDINGS. — 1873-4.

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Symonds, G. H.	do.	Winzer, J.	In Europe
		Zoysa, L. de Mudlr.	Colombo

COMMITTEE MEETING.

January 29, 1873.

Present.

Major Fyers, R.E., President,	H. J. Macvicar, Esq.
L. De Zoysa, Mudaliyar,	and J. Capper, Esq.

The Minutes of the previous meeting having been read and confirmed, the Secretary stated that the following papers were ready for reading at the next General Meeting:—

Greek accounts of early Indian Literature.
The games and toys of the Singhalese.
Translations from Dutch Records.
Notes on the identity between Asoka and Pyadasi.
An inscription at Dondra.

The following names were proposed for ballot at the General Meeting: –

H. S. Deane,	by Messrs. E. H. Symonds, and H. J. Macvicar.
H. K. Green,	by Messrs. H. J. Macvicar, and J. Capper.
C. H. De Soyza,	by Messrs. L. De Zoysa, and J. Capper.
R. D. Ormsby,	by Messrs. R. Dawson, and J. J. Grinlinton.

Resolved that the next General Meeting be held on Monday, June 3rd, at an hour to be hereafter ascertained. The Treasurer then read a list of the birds presented to the Society since the last meeting.

Committee Meeting.

March 21, 1873.

Present.

Major Fyers, R.E., President.	L. De Zoysa Mudaliyar,
J. J. Grinlinton, Esq.	H. J. Macvicar, Esq.

and J. Capper. Esq.

The Secretary laid on the table a Weather Chart received from the Marine Board of the United States of America.

A letter was read from Lieut. Legge, R.A., Corresponding Secretary, regarding the delay in printing the Society's Journal.

The Secretary explained the cause, as arising from the practice of members altering and even re-printing papers after reading before the Society.

Resolved that a resolution disallowing this practice be submitted to the next General Meeting.

Submitted a list of birds contributed to this Society's Museum since last meeting.

Resolved that in future the Society's Journal be published quarterly, when practicable.

The Secretary stated that the following gentlemen had been named as candidates for membership :—

Messrs. R. B. Hobbs, J. Gibson, J. Horsfall, J. Adams, Banderanaike Mudaliyar, J. Dehigame, and Rev. T. F. Falkner.

Reading Committee.

March 21, 1873.

Present.

Major Fyers, R.E.,	H. J. Macvicar, Esq.
L. De Zoysa Mudaliyar,	and J. Capper, Esq.

Resolved that the papers read at the two last General Meetings be printed and published in the Society's Journal with as little delay as possible.

COMMITTEE MEETING.

Thursday, May 25, 1873.

Present.

Rev. J. Scott, in the Chair,	H. J. Macvicar, Esq.
Geo. Armitage, Esq.	L. De Zoysa Mudaliyar, and
E. C. Britton, Esq.	J. Capper, Esq.

Read a letter from Mr. Legge, proposing that the Society exchange journals with the Royal Society of Tasmania.

Resolved that the proposal be adopted.

Resolved that the Society communicate with the Governor's Private Secretary in order to ascertain on what day it will be convenient for His Excellency to preside at the next General Meeting, and that the date be in the meantime left open.

Laid on the table two Nos. of "Stray Feathers," from Calcutta, and Proceedings of the Asiatic Society, Bengal, for January and February, 1873.

COMMITTEE MEETING.

September 19, 1873.

Present.

Major Fyers, in the Chair,	H. J. Macvicar, Esq.
R. Dawson, Esq.,	L. De Zoysa, Mudaliyar, and
	J. Capper, Esq.

Read and confirmed previous Minutes.

The Secretary stated that the following names were intended to be proposed for ballot at the next General Meeting :—

The Rev. C. B. Fernando, F. W. Byrde, Esq., J. W. Vanderstraaten, Esq., W. B. Rodrigue, Esq, A. Sinclair, Esq., P. Daendliker, Esq., Boyd Moss, Esq., and A. Y. Adams, Esq.

The provisions of the Museum Ordinance were read and considered by the Meeting, in reference to the clause affecting the Society, which was considered advantageous.

The following papers were declared ready for the next meeting.

Translations of a portion of Valentyn's Ceylon, by L. Ludovici, Esq.

On the Brand Marks in Ceylon cattle by J. de Alwis, Esq.

Translations from the Pansiya Panisjataka by L. de Zoysa, Esq.

The Secretary was requested to ascertain what day in the ensuing week would be convenient for His Excellency the Governor to preside at a General Meeting and to issue notice accordingly.

At the suggestion of the Honorary Secretary, the name of the Rev. T. Felton Falkner was added to the list of the Committee of Management.

COMMITTEE MEETING.

Saturday, December 13, 1873.

Present.

Col. Fyers, President,	H. J. Macvicar, Esq.
Geo. Armitage, Esq.	L. de Zoysa Mudaliyar, and
Rev. T. Felton Falkner,	J. Capper, Esq.

Read and confirmed Minutes of previous Meeting.

The Secretary read a letter from the Colonial Secretary regarding repairs of roof of Society's rooms, and in reference to assessment tax, also a second letter consenting to print the Society's Journal at the Government Press.

The names of the following gentlemen were submitted to be ballotted for at next General Meeting:—

L. Liesching, Esq.; A. O. Joseph, Esq.; W. Ronald, Esq.

The following papers were announced as ready for the next Meeting:—

Notes on the occurrence of a rare Eagle new to Ceylon, and of other interesting or rare birds found in Ceylon, by S. Bligh.

Translations from the Dutch Records by R. VanCuylenberg.

Extracts from Valentyn's History of Ceylon by L. Ludovici.

The Secretary laid on the table six copies of Mr. Legge's paper on birds found in the Hambantota district from the Colonial Secretary.

Resolved that the next General Meeting be held on some day next week, and that the Secretary ascertain what day will be convenient for the Governor to preside, and issue notices accordingly.

COMMITTEE MEETING.

March 23, 1874.

Present.

L. de Zoysa, Mudaliyar, | H. J. Macvicar, Esq.
and Rev. T. F. Falkner.

The Minutes of the previous meeting were read and confirmed.

It was decided that the Anniversary Meeting should be held as shortly after the President's return to Colombo as possible.

The following publications were laid on the table :—

Journal of the Asiatic Society of Bengal, Proceedings.

Stray Feathers.

Bulletins of Signal Service, 1872.

Archæological Survey of India, Vol. III.

COMMITTEE MEETING.

Monday, June 8, 1874.

Present.

Lt.-Col. Fyers, R.E., President, | H. J. Macvicar, Esq., Treasurer,
Rev. T. F. Falkner, Secretary.

The Minutes of the last meeting were read and confirmed.

It was resolved that the Anniversary Meeting hitherto unavoidably postponed should be held on Tuesday, June 30.

The following Office-bearers and Committee were suggested for the current year :—

President—R. Dawson, Esq.

Vice-Presidents—C. P. Layard, Esq.
R. V. Dunlop, Esq.
G. Wall, Esq.

Treasurer—Geo. Armitage, Esq.

Secretary—Rev. T. Felton Falkner.

Corresponding Secretary—Lieut. Legge, R.A.

Librarian—H. J. Macvicar, Esq.

Committee.

J. de Alwis, Esq., E. C. Britton, Esq., W. Ferguson, Esq., J. Ferguson, Esq., S. Green, Esq., Keppel Jones, Esq., F. M. Mackwood, Esq., Rev. J. Scott, and L. de Zoysa, Mudaliyar.

The following publications were laid on the table :—

The Society's Journal for 1873–74.

The Ibis, January, 1874.

Asiatic Society Bengal, Journal, February 1874.

Indian Birds—Allan Hume.

GENERAL MEETING.

Monday, February 3, 1873.

Present:

His Excellency the Governor, presiding.

Lieut.-Col. Fyers,	R. VanCuylenburg, Esq.,
T. Berwick, Esq.,	K. Jones, Esq.,
L. de Zoysa, Esq.,	Jas. Alwis, Esq.,
R. Dawson, Esq ,	A. M. Ferguson, Esq.,
L. Ludovici, Esq.,	J. Ferguson, Esq.,
J. Capper, Esq.,	Rev. J. Scott., &c.

Mr. Capper (Honorary Secretary) laid on the table lists of contributions to the Museum, and books purchased for the Library. He also submitted a number of ancient copper coins, being a portion of about 2,500 found in a chattie, by Mr. Elphinstone of Logie, whilst preparing land for planting on the Palampitia Estate in Ambegamuwa; they were discovered within what had once been a stone fort, about 150 feet in circumference, and inside which were trees 18 inches in diameter, which must have sprung up since the fort was deserted. It was situated closely adjacent to the old Sinhalese path from Ruanwelle to Ambagamuwa, and according to native tradition, the locality was once the residence of a Kandyan king, said to have been driven from the spot by Portuguese or Dutch troops.

Resolved that the thanks of the Society be given to the donors of the several contributions.

The following gentlemen having been proposed and seconded for election as members, their names were submitted to the ballot, and the result being favourable they were declared duly elected.

Messrs. C. H. de Soysa, H. S. Deane, A. K. Green, R. D. Ormsby, and E. Swan.

The following papers were then read:—

On the Toys and Games of the Sinhalese, by Mr. Ludovici.

Greek Accounts of Ancient Literature in India, by Mr. J. de Alwis.

Translation from Dutch Records, by Mr. R. VanCuylenburg.

Translation of a Dambool Inscription, with notes, by Mr. T. Rhys David.

On the Identity of Asoka and Pyadasie, by L. de Zoysa, Mudaliyar.

The Governor having expressed the gratification with which he had listened to the papers just read the business terminated.

General Meeting.

Tuesday, June 3, 1873.

Present:

His Excellency the Governor, presiding.

Lieut.-Col. Fyers,	F. M. Mackwood, Esq.,
R. Dawson, Esq.,	Rev. J. Scott,
H. J. Macviear, Esq.,	J. Thwaites, Esq., M.D.,
Geo. Armitage, Esq.,	L. Ludovici, Esq.,
L. de Zoysa, Esq.,	A. M. Ferguson, Esq.,
J. de Alwis, Esq.,	W. Ferguson, Esq.,
R. V. Dunlop, Esq.,	R. VanCuylenburg, Esq.,

A. Whyte, Esq.

The Secretary laid on the table the Journal and Proceedings of the Society for 1871–72 just printed, copies of which will be issued to all members who have paid up their subscriptions for that period.

The Secretary laid on the table lists of objects added to the Museum since the last meeting, comprising four birds presented by Mr. W. V. Legge, 16 by Mr. H. J. Macvicar, and 45 shot and prepared by the Taxidermist, a fish presented by Mr. Geo. Nicholls, a number of coins, fish, &c., by Chas. P. Karunaratne of Negombo, a chisel found below the surface of forest at Rúgam, and a specimen of lignite from Deltota, also copy of an inscription from the Muhandiram of Galagedara.

The following gentlemen were then ballotted for and elected members of the Society:—

The Rev. T. Felton Falkner, F.S.A.

Proposed by Lieut.-Col. Fyers.
Seconded by the Secretary.

C. E. Strachan, Esq.

Proposed by Geo. Armitage, Esq.
Seconded by E. C. Britton, Esq.

T. Berwick, Esq.

Proposed by C. P. Layard, Esq.
Seconded by Geo. Armitage, Esq.

R. B. Hobbs, Esq.

Proposed by the Secretary.
Seconded by H. J. Macvicar, Esq.

J. Gibson, Esq.

Proposed by Lieut.-Col. Fyers.
Seconded by H. J. Macvicar, Esq.

J. Horsfall, Esq.

Proposed by Lieut.-Col. Fyers.
Seconded by E. C. Britton, Esq.

R. O. S. Morgan, Esq.

Proposed by R. VanCuylenburg, Esq.,
Seconded by the Secretary.

Bandaranaike Mudaliyar.

Proposed by H. J. Macvicar, Esq.
Seconded by the Secretary.

The following papers were then read:—

The Stature of Gotama Buddha, by Mr. J. de Alwis.

On the Island distribution of the Birds in the Society's Museum, by Mr. W. V. Legge.

Description of a supposed new genus of Ceylon Batrachians, by Mr. W. Ferguson.

Text and translation of a rock inscription at Pepiliyána, near Kotta, by L. de Zoysa, Mudaliyar.

The following resolution was then

Proposed by Lieut.-Col. Fyers,
Seconded by R. Dawson, Esq.

That great delay and inconvenience having been caused by the members re-writing portions of their papers after they have been read at a General Meeting, the Secretary be requested to retain possession of all papers that have been read before the Society, until sent to the Committee on papers.—Carried.

The Secretary proposed the following resolution:—

That the rule of the Parent Society in regard to defaulting members be adopted, and that after a defaulter shall have been noticed three times without avail his name be removed from the books of the Society.

The resolution was seconded and adopted.

The Governor remarked that as it was his intention to introduce a vote at the next meeting of the Council, for the erection of a Public Museum, and as members of this Society would be accorded certain privileges beyond those granted to the public, perhaps that consideration might induce gentlemen to be more punctual with their subscriptions in order to retain their membership.

Lieut.-Col Fyers then proposed a vote of thanks to His Excellency the Governor for his kindness in presiding, to which the Governor replied.

General Meeting.

Thursday, September 25, 1873.

Present:

His Excellency the Governor, presiding.

Lieut.-Col. Fyers,	Dr. VanDort,
J. de Alwis, Esq.,	J. Ferguson, Esq.,
L. de Zoysa, Esq.,	J. J. Grinlinton, Esq.,
H. J. Macvicar, Esq.,	W. C. Brodie, Esq.,
J. Capper, Esq.,	R. VanCuylenburg, Esq.,

Rev. J. Scott.

The Minutes of the previous meeting having been confirmed, the Secretary laid on the table a list of the additions to the Museum, since the date of the last Meeting, viz., forty-six specimens of birds by H. J. Macvicar, Esq., one by F. H. Grinlinton, Esq., and twelve collected by the Society's Taxidermist.

The Librarian laid on the table a list of the books, &c., added to the Library since the last meeting, viz.:—

Dalton's Descriptive Ethnology of Bengal, by the Government of Bengal.

Four Journals of the Asiatic Society of Bengal, and Proceedings of the Asiatic Society of Bengal.

Notes on Sanscrit MSS., by Babu Rajendra Lal Mitra, from the author.

Stray Feathers, Indian Antiquary for August, and the Ibis for July.

The following gentlemen were then ballotted for, and duly elected members:—

The Rev. C. J. B. Fernando,

Proposed by L. Ludovici, Esq.
Seconded by Dr. Vandort.

F. W. Byrde, Esq.

Proposed by J. Capper, Esq.
Seconded by H J. Macvicar, Esq.

J. W. Vanderstraaten, Esq.

Proposed by L. Ludovici, Esq.
Seconded by Dr. Vandort.

W. B. Rodrigue, Esq.

Proposed by L Ludovici, Esq.
Seconded by Dr Vandort.

A. Sinclair, Esq.

Proposed by J. Ferguson, Esq.
Seconded by J. Capper, Esq.

P. Daendliker, Esq.

Proposed by J. Ferguson, Esq.
Seconded by J. Capper, Esq.

Boyd Moss, Esq.

Proposed by J. Capper, Esq.
Seconded by Lieut.-Col. Fyers.

A. Y. Adams, Esq.

Proposed by Lieut.-Col. Fyers.
Seconded by J. Capper, Esq.

The Secretary intimated that he intended at the next General Meeting to resign his duties in connection with the Society.

The following papers were then read:—

Translations from the Pansiya-panasjátaka, by L. de Zoysa, Mudaliyar.

On the Brand Marks on the Ceylon Cattle, by Mr. Jas. de Alwis.

GENERAL MEETING.

Thursday, December 18, 1873.

Present.

His Excellency the Governor, presiding.

Lieut.-Col. Fyers,	J. de Alwis, Esq.,
Rev. T. Felton Falkner,	L. de Zoysa, Esq.,
R. Dawson, Esq.,	R. O. S. Morgan, Esq.,
H. J. Maeviear, Esq.,	W. Henry Herbert, Esq.,
W. Ferguson, Esq.,	R. VanCuylenberg, Esq.,

J. Capper, Esq.

Read and confirmed Minutes of the last General Meeting.

The Secretary laid on the table a list of the books and periodicals added to the Library, also a list of additions to the Museum.

The following gentlemen were then proposed and seconded for by ballot:—

L. Liesching, Esq.

Proposed by J Capper, Esq.
Seconded by Lieut.-Col. Fyers.

A. O. Joseph, Esq.

Proposed by R. VanCuylenburg, Esq.
Seconded by L. de Zoysa, Esq.

W. Rositer, Esq.

Proposed by H. J. Maeviear, Esq.
Seconded by J. Capper, Esq.

A ballot having been taken they were found to be duly elected.

The Secretary laid a copy of the First Part of the Society's Journal for 1873 on the table.

The following papers were then read :—

Notes on the occurrence of a rare Eagle new to Ceylon, and other interesting or rare birds, by Mr. R. S. Bligh.

Translations from the Dutch Records, by Mr. R. VanCuylenburg.

The Secretary having tendered his resignation, preparatory to his departure from the Island, it was proposed by His Excellency the Governor, seconded by Lieut.-Col. Fyers.

"That this Society accepts with much regret the resignation of Mr. Capper, and beg to offer him their sincere thanks for his earnest and efficient services in endeavouring to promote and maintain the interests of the Branch of the Asiatic Society in Ceylon."—Carried.

It was then proposed by L. de Zoysa, Mudaliyar, and seconded by Mr. J. de Alwis.

"That in recognition of the good services rendered from the commencement of the Society by Mr. Capper, he be elected an Honorary Member of the Society."—Carried.

The Rev. T. Felton Falkner was appointed Secretary of the Society, in Mr. Capper's place.

PROCEEDINGS. — 1874.

General Meeting.

July 2, 1874.

Present :

Geo. Armitage, Esq., in the Chair.

E. C. Britton, Esq.,	Dr. Loos,
L. De Zoysa, Mudaliyár,	Dr. Vandort, and
R. VanCuylenberg, Esq.,	The Rev. T. F. Falkner.

The following gentlemen were duly ballotted for and elected:—

Rev. Jas. Bacon, B.D.,	proposed by the Rev. T. F. Falkner, seconded by J. Capper, Esq. ;
J. B. Cull, Esq., B.A.,	proposed by the Rev. T. F. Falkner, seconded by Geo. Armitage, Esq. ;
H. Drew, Esq.,	proposed by the Rev. T. F. Falkner, seconded by E. C. Britton, Esq. ;
S. P. Dawson, Esq.,	proposed by H. J. Macvicar, Esq., seconded by the Rev. T. F. Falkner ;
A. Allardyce, Esq.,	proposed by the Rev. T. F. Falkner, seconded by J. Capper, Esq.

It was agreed that the Annual Meeting should be held on Thursday, July 9th, at 3 o'clock, and that members be notified accordingly.

It was proposed by Mr. Britton and seconded by Mr. VanCuylenberg, that the following motions be submitted at the next General Meeting :—

1. "That the subscribers have the option of paying Rs 10·50 in advance, or Rs 1 monthly, as their subscription."

2. "That a Peon be appointed to collect the subscriptions."

L. De Zoysa, Mudaliyár, gave notice that he should tender his resignation of the office of Librarian at the next General Meeting.

Annual Meeting.

July 9, 1874.

Present.

Lieut.-Col. Fyers, R.E., in the Chair.

R. V. Dunlop, Esq.,
S. Green, Esq.,
J. D'Alwis, Esq.,
L. De Zoysa, Mudaliyár,
E. F. Prins, Esq.,
J. W. Vanderstraaten, Esq.,
R. VanCuylenberg, Esq.,
J. Ferguson, Esq.,
O. S. Morgan, Esq.,
Geo. Armitage, Esq.,
E. C. Britton, Esq.,
The Rev. J. Bacon,
J. Thwaites, Esq.,
T. Berwick, Esq.,
K. Jones, Esq.,
J. Capper, Esq.,
N. Sagarajasingham, Esq.,
A. O. Joseph, Esq., and
The Rev. T. F. Falkner.

The following gentlemen were proposed and seconded, and duly elected members of the Society :—

C. F. Maffett, Esq., proposed by the Rev. T. F. Falkner, seconded by the Rev. J. Bacon.

W. P. Ranasingha, Esq., proposed by L. De Zoysa, Mudaliyár, seconded by J. De Alwis, Esq.

The Secretary read the Annual Report, also letters received from Lieut.-Col. Cunningham, Director-General of the Archæological Survey of India, and the Director of the Anthropological Institute of Great Britain and Ireland.

The presentation of a number of coins by F. W. Byrde, Esq., of Dimbula, was announced, and the coins laid on the table. A vote of thanks was ordered to be conveyed to the donor.

The President read his address, and the election of the Officers and Committee, as nominated at the Committee Meeting of June 8th, was sanctioned.

The following gentlemen were appointed to act as a Reading Committee :—

S. Green, Esq., J. De Alwis, Esq., W. Ferguson, Esq., L. De Zoysa, Mudaliyár, and the Rev. T. F. Falkner.

It was proposed by C. Britton, Esq., and seconded by R. VanCuylenberg, Esq., "that it be optional for the Members to pay their subscriptions either by Rs 1 monthly or Rs 10·50 in advance, and that a Peon be employed to collect the subscriptions."

It was proposed by R. V. Dunlop, Esq., and seconded by the Secretary, "that the subscription remain as before, but that a collector be appointed to get in the subscriptions, and paid by a

commission." After a slight discussion, the latter was carried unanimously.

A letter was laid on the table from the French Consul at Galle, on the subject of a Congress at Paris in 1875.

Proposed by J. De Alwis, Esq.,
Seconded by J. Capper, Esq.,

"That the Secretary be authorized to open a correspondence with scientific bodies in Europe and the Colonies, with a view to an exchange of Journals and Proceedings."

Proposed by R. V. Dunlop, Esq.,
Seconded by the Rev. T. F. Falkner,

"That the thanks of the Ceylon Branch of the Asiatic Society be given to Lieut.-Col. Fyers for the valuable assistance rendered to the Society during his tenure of the important office of President."

General Meeting.

November 2, 1874.

Present.

His Excellency the Governor, in the Chair.

R. Dawson, Esq., President,
Geo. Wall, Esq., Vice-President,
W. Ferguson, Esq.,
W. H. Herbert, Esq.,
Dr. Loos,
L. Liesching, Esq.,
A. Allardyce, Esq.,
R. VanCuylenberg, Esq.,
H. J. Macvicar, Esq.,
Geo. Armitage, Esq.
O. S. Morgan, Esq.

The Rev. T. F. Falkner, Secretary.

The Minutes of the last meeting having been read and confirmed, the Secretary read a letter from Mr. Macvicar, announcing a donation of birds from that gentleman, with brief remarks, also an extract from a letter from the Taxidermist with reference to a specimen of "Loris Gracilis" presented by him to the Society.

The following gentlemen were then elected members of the Society:—

D. F. Browne, Esq., proposed by the Secretary, seconded by A. Allardyce, Esq.;
J. N. Keith, Esq., F. C. Loos, Esq., proposed by George Armitage, Esq., seconded by E. C. Britton, Esq.;
E. Heelis, Esq., proposed by F. W. Byrde, Esq., seconded by the Secretary.

Papers were then read:

(1.)—On preparing and mounting insects for the Binocular Microscope, by Staniforth Green, Esq.

(2.)—On certain Játakas relative to the sculptures recently discovered in Northern India, by L. De Zoysa, Mudaliyár.

(3.)—On a species of vulture *(Neophron Perenopterus)* new to Ceylon, shot at Nuwara Eliya by Alexander Whyte, Esq.

(4.)—On a snake found in the Southern Province, supposed to be new to Ceylon, by W. Ferguson, Esq.

Votes of thanks were duly proposed and seconded to the contributors, and to His Excellency for so kindly presiding.

RULES AND REGULATIONS OF THE SOCIETY.

[*Mem.*—The Asiatic Society of Ceylon was instituted 7th February, 1845; and by the unanimous vote of a Special General Meeting of the Royal Asiatic Society, held on the 7th February, 1846, it was declared a Branch of that Society, under the designation of the Ceylon Branch of the Royal Asiatic Society.]

1. The design of the Society is to institute and promote inquiries into the History, Religion, Literature, Arts, and Social Condition of the present and former inhabitants of this Island, with its Geology and Mineralogy, its Climate and Meteorology, its Botany and Zoology.

2. The Society shall consist of Resident or Ordinary, Honorary, and Corresponding Members; all elected by ballot at some General Meeting of the Society.

3. Members residing in any part of Ceylon are considered resident.

4. Persons who contribute to the objects of the Society in an eminent and distinguished manner, are eligible as Honorary Members.

5. Persons residing at a distance from Colombo may, upon special grounds, and with the recommendation of the Committee, be elected Corresponding Members.

6. Honorary and Corresponding Members shall not be subject to any fee on entrance, or any annual contribution, and are to be admitted to the meetings of the Society, and to the privilege of the Library, but are not to vote at meetings, or be elected to any of its offices, or take any part in its private business.

7. All Military Medical Officers resident, or who may reside in Ceylon, are Honorary Members of the Society without entrance fee or subscription.

8. Every ordinary Member of the Society shall pay, on admission, an entrance fee of half a guinea, and an annual subscription of one guinea. Annual subscriptions shall be considered due on the 1st of January of each year. Members who fail to pay their subscriptions by the end of the year (provided they have been called for), shall be considered to have relinquished their connection with the Society.

9. The privilege of a Life Membership may be ensured by the payment of £10 10*s*., with entrance fee, on admission; £8 8*s*., after two years; and £7 7s., after four or more years' subscriptions.

10. The Office-bearers of the Society shall be, a President, two Vice-Presidents, Treasurer and Secretary, with a Librarian,

Curator of the Museum, and Conservator of the Meteorological and other scientific instruments of the Society :—all appointed from time to time by open vote at some General Meeting of the Society; and their functions shall be as follows :—

(1.) The President, and in his absence one of the Vice-Presidents, shall take the Chair at all meetings of the Society and of the Committee, maintain order, collect the votes, and cause the laws of the Society to be observed and enforced.

(2.) The Treasurer shall receive, collect, and pay out all moneys on behalf of the Society, keep an account thereof, with the vouchers, and submit a statement of the pecuniary affairs of the Society to the Anniversary Meeting, and at other times as may be required.

(3.) The Secretary shall arrange, give notice of, and attend, all meetings of the Society and of the Committee, and record their proceedings; he shall also edit the Journal, and exercise a general superintendence under the authority of the Committee.

(4.) The Librarian, Curator of the Museum, and Conservator of the Scientific Instruments belonging to the Society, will take charge of the books and other articles committed to them respectively, keep a correct list thereof, and generally conform in their management to the Rules of the Society in that behalf, or in the absence of such, to the directions of the Committee, having respect at all times to the safety and proper condition of the articles, and to the interests of the Society in their increase and improvement : the Curator of the Museum, in particular, taking care to superintend the reception of all articles in that Department transmitted to the Society, and have the same speedily submitted to examination, reported on, and suitably arranged.

11. The affairs of the Society shall be managed by a Committee of nine Members, (with power to add to their number) in addition to Office-bearers, elected in like manner; but subject always to the Rules and Regulations passed at General Meetings ; three to be a quorum.

12. Members desirous of proposing persons for admission to the Society shall give notice of the same to the Secretary, in writing, at least a fortnight before the assembly of a General Meeting. Admission to Membership of the Society shall be by ballot at any General Meeting. No candidate to be considered as elected, unless he has in his favour two-thirds of the votes taken.

13. A General Meeting of the Society shall be held quarterly namely, on the 7th day of February or first lawful day thereafter

and in the first week of the months of May, August, and November, and at such other times as may be determined by the Committee: due notice of the Meeting, and of any intended motion which does not come through the Committee, except the nomination of new Members, being always first given by the Secretary.

14. All papers and communications to the Society shall be forwarded to the Secretary at least a fortnight before the assembly of the General Meeting at which they are to be submitted; when they shall be read by the Author, or in his absence by the Secretary, or some Member of the Society.

15. All papers and other communications to the Society read or submitted at any General Meeting, shall be open to free discussion; and such papers shall be printed in the transactions of the Society as shall have been approved of by the Committee on Papers.

16. The course of business at General Meetings shall be as follows:—

(1.) The Minutes of the last Meeting shall be read by the Secretary, and signed by the Chairman.

(2.) Reports of Committees shall be read, and communications made of all articles received, and donations to the Society.

(3.) Any specific or particular business submitted by the Committee, or appointed or open for consideration, shall be proceeded with.

(4.) Candidates or new Members shall then be proposed, balloted for, and admitted or otherwise, as the case may be.

(5.) Papers and Communications for the Society shall then be read.

17. Special Committees may be formed for the prosecution of any specific object or matter of research; but these must be named at a General Meeting; and they will act as much as may be in co-operation with the Secretary of the Society, who will also be a constituent member of all such Committees.

18. Every Member of the Society has the privilege of introducing, either personally or by a card, one or two visitors to the General Meetings.

19. One copy of each Journal shall be sent by the Secretary to every member who has paid his subscription for the current year, and to every Honorary Member resident in Ceylon, and every such Member may procure a second copy, on application to the Secretary. Members requiring more than two copies of the Journal can be supplied with them at half the price charged to the public.

20. Evening Meetings shall be held once a month, or at other times as may be arranged, for discussion on papers read, or to be read at General Meetings, (such papers however not neces-

sarily being before the meeting,) the mutual improvements of the members, and the promotion of the objects and advancement of the interests of the Society.

21. Members who have been absent from Ceylon, on their return to the Island, have the privilege of re-joining the Society within twelve months of their arrival, on payment of the subscription for the current year.

22. It shall be competent for any General Meeting to suspend temporarily any of the above Rules.

Rules of the Library.

1. All Books borrowed from the Library shall be duly entered in the Receipt Book, with the date of giving out, and the date of the return, which latter shall be initialled by the Librarian.

2. No book to be written on, or injured in any respect whatsoever, and every book borrowed shall be returned in proper condition, as received.

3. The period for which books borrowed may be kept shall be as follows:—

(1.) Periodicals, and numbers or volumes of a series, while they remain unbound, for 14 days only, and no more.

(2.) Books and Periodicals must be returned at the end of the month in which they were issued, to enable the Librarian to verify his Catalogue. Members not residing in Colombo may retain a book for a period not exceeding three months. But

(3.) All books borrowed, of whatsoever description the same may be, shall be returned to the Library one week at least before the 7th of February in every year,—that pamphlets and serials may be bound up, and the Catalogues corrected; and that a proper report on the state of the Library may be prepared for the Anniversary Meeting.

4. Dictionaries, and works of reference, or of special rarity or value, do not go out; they remain in the Library for use or inspection; and Periodicals lie on the table for one week.

5. All works in the Library, or on the table of the Society, may be seen and consulted by Members, and also by others properly recommended, with the leave of the Librarian, or of his assistants under his direction.

The Museum.

No article under the charge of the Curator of the Museum, or of the Conservator of Scientific Instruments belonging to the Society, shall be moved or touched but by the Curator and Conservator respectively, or their assistants under their express direction.